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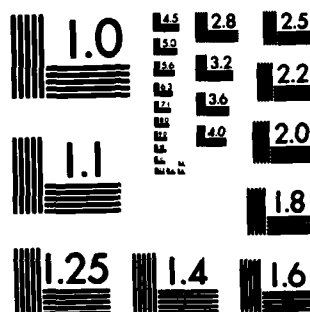
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# ELECTRONIC EQUIPMENT RELIABILITY DATA

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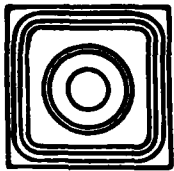
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## **ELECTRONIC EQUIPMENT RELIABILITY DATA**

**Prepared by:**

**William A. Cesare and Susan B. Stockman  
IIT Research Institute**

**Under Contract to:**

**Rome Air Development Center  
Griffiss AFB, NY 13441-5700**

**Ordering No. EERD-2**

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## PREFACE

This is the second of a series of reliability data publications at the system/equipment level. A complementary series of documents is concerned with system/equipment maintainability data (Electronic Equipment Maintainability Data (EEMD-1)). Other volumes prepared by the Reliability Analysis Center consider reliability of digital microcircuits, discrete semiconductors (including optoelectronic and microwave devices), hybrids, linear and interface devices, memory/LSI devices, and nonelectronic parts.

The data presented in these reliability publications are intended to complement such documents as MIL-HDBK-217, MIL-STD-883 and MIL-HDBK-472. EERD-2 is presented as a total replacement to the document EERD-1. The report reflects an approximate increase of 50 percent in the quantity of data presented and the equipment IDs have been revised in this edition. This change in specific equipment references therefore, precludes the interchange of material between publications.

The user is cautioned, however, that the data contained herein may not be used in lieu of contractually cited references.

The principal investigator of this publication was William Cesare, with Susan Stockman providing the analysis.

The authors would like to express sincere appreciation to all those who contributed their time and effort to the preparation of this document, with very special thanks to the following individuals:

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## INTRODUCTION

This equipment-level reliability compendium provides reliability data on military electronic equipments at the set, group and unit levels. Each equipment has been assigned an Equipment Identification number (EQUIP ID). This EQUIP ID is unique to an equipment, and it is used consistently throughout the publication. The equipment IDs used in this report are not the same as those IDs used in EERD-1.

The data provided in this publication is taken from the RAC Systems Reliability, Availability and Maintainability (Systems RAM) data base. This is an electronic equipment-level data base which provides contractual and technical descriptions of numerous equipments. The data base also provides information on reliability, maintainability and availability of the equipment at all phases of its life cycle. The contractual description consists of the goals and criteria imposed upon the contractor (for example, the appropriate military standard and revision for reliability predictions and demonstrations is cited). The technical description consists of the design approaches, technologies, major parameters and complexity of a particular equipment.

The Systems RAM data base provides a comprehensive data bank to generate EERD and EEMD data books, to respond to technical inquiries, and to provide information for special projects and reports. The data books stand as compendia of data analyzed to provide key attributes relating to reliability and maintainability. The data permits more accurate formulation of design and development techniques to improve operational reliability, maintainability prediction and life cycle cost.

The data from the Systems RAM data base helps to refine, revise and develop reliability and maintainability prediction, allocation and demonstration techniques with regard to the environment and equipment type.



The major goal of the document is to evaluate common reliability practices and to investigate the relationships between those parameters designed to assist in the development of reliable equipments. The results of statistical and graphical analyses are presented in the text to provide unbiased examination of current reliability indicators. The objective of the study was to determine the relative effectiveness of those indicators and to help enhance the capabilities of reliability forecasting.

The reliability data are obtained essentially from observed field usage and from contractually deliverable documentation associated with development and production of military electronic systems and equipment. Compilations and/or automated data retrieval systems such as the Air Force Maintenance and Operational Data Access System (MODAS) and the Navy Maintenance, Material and Management (3-M) data collection system are sources for this data. The documentation researched included reliability allocation, assessment and analysis reports, reliability demonstration test reports, simulated operation test reports, production verification test reports (for reliability data), operating and maintenance manuals (T.O.'s), equipment specifications and contract documents (for technical design and program requirement data). In many cases, the documentation, or the data within the documentation, was incomplete and the equipment manufacturer was queried to obtain the needed information. A continuous concentrated effort was made to fill in the missing technical data and to obtain more field data for comparison with requirements, predictions, and test results.

The information contained in this report is an up-to-date listing of the Reliability Analysis Center's System RAM dedicated data base. The data contained herein are the sum of reliability prediction, demonstration testing and field experience which has been collected over the past 15 years. The field data has been collected predominately in the time period of 1983 through 1985.

The report is structured as described in the following paragraphs:

Section 1 - Definition of Terms, lists the definitions of terms used in the Reliability Data Analysis (Section 2) and in the Equipment Reliability Data Detailed Listings (Section 3). These definitions are oriented toward their usage in the report and are based on the definitions contained in AFR/800-18, IEC 271, MIL-STD-781C, and MIL-STD-721C, which were utilized to the extent feasible to accomodate all services.

Section 2 - Data Analysis, describes the analyses, summaries, and comparisons of the reliability data contained in Section 3 of the report. Every attempt has been made to present summaries which will be useful and meaningful to program managers and reliability analysts. Further detailed and specific information is contained in the Section 2 introduction and the narratives to the tables and graphs.

Section 3 - Equipment Reliability Data, contains detailed listings of reliability data contained in the Systems RAM automated data base. Included are specified, allocated and predicted reliability numerics. Also included are reliability numerics experienced during field operation, simulated operation, production reliability verification and demonstration tests. The formats were devised for ease of reading within the constraints of the data base. Computer codes and cross-referencing were utilized to present the data in an efficient and concise manner. The reliability data is organized first by category, then by equipment types, equipment identification number and data source. The data are organized in this manner so that the reader may readily compare all reliability numerics for each equipment. The reliability data listing is preceded by a usage guide, which explains each data column and provides the definitions of the coded entries in the column.

Section 4 - Equipment Characterization Data, contains detailed listings of equipment characterization data contained in the Systems RAM automated data base. The data included in this section relates to equipment design factors which influence reliability and maintainability. A complete description of the types of data included is contained in the introduction to Section 4. Entries in this section are organized by equipment ID number.

Section 5 - Program/Contract Characterization Data, contains detailed listings of program and contract related data contained in the Systems RAM automated data base. Included are procurement and contract data, application environment data and program requirements. A complete description of the types of data included is contained in the introduction to Section 5. Entries in this section are organized by program ID number.

# **DEFINITION OF TERMS**

## DEFINITION OF TERMS

### INTRODUCTION

For the convenience of the user, the terms and statistical methods used within this document are presented in this section. The definitions provided by AFR/800-18, IEC 271, MIL-STD-781C, and MIL-STD-721C were reviewed for standard R&M definitions and are utilized to the extent possible to accommodate all services. It should be noted that various significant differences exist among several of the definitions in the above documents. It is further noted that this report and the definitions herein were based on the general consensus of terminology. In areas where a consensus opinion could not be determined, a composite definition was determined and used.

### GENERAL DEFINITIONS

Active Elements: Denotes the total quantity of electron tubes, discrete semiconductors, and microcircuits (hybrids, digitals, linear/interface, memory/LSIs and microprocessors) in the applicable equipment.

Category: Denotes the general functional purpose of the overall equipment. It is usually defined at the set/equipment level. The categories included in this document are:

- Computer
- Controls/Displays
- Electronic Countermeasures/  
Electronic Warfare
- Guidance/Navigation
- Test Equipment
- Radar
- Weapons
- Communications

Data Source: The source of the reliability data. The following data types are included for the equipments listed in the publication:

Contract/Spec. Requirements  
Allocation  
Prediction  
Reliability Demonstration  
Production Reliability Verification  
(PRVT, RET, etc.)  
Simulated Operation (CAT I, DOT&E,  
IOT&E, SEDS, OTI, etc.)  
Field Data

Dependent Variable: The variable (designated by Y) which is influenced by the independent variable(s) (designated by the  $X_i$ ). For this study, the dependent variable was typically a reliability measure which depends on various independent variables such as environment, procurement, etc..

Equipment ID: Each equipment in the detailed listing was assigned a number for easy reference. These numbers are assigned sequentially as the data is entered into the data base. The number is unique for an equipment and consistent throughout the publication.

Equipment Type: Denotes the specific function of the equipment. It is usually defined at the Group or Unit equipment level. The equipment types included in this document are:

Power Supply	Multiplexer/Demultiplexer
Transmitter	Interconnection/Distribution
Receiver	Converter, D/A or A/D
Transceiver	Filter
Antenna	Inertial Reference
Amplifier, Audio	Stellar Reference
Amplifier, RF	Frequency/Timing Generator
Amplifier, Video	Cooling/Pressurizing

Computer	Test Circuitry
Memory	Alarm
I/O Device	Signal/Data Processor
Indicator/Control	Miscellaneous
Modulator/Demodulator	Transducer
Coder/Decoder	

Failure, Non-Relevant: A failure either (1) caused by a condition external to the equipment under test which is not a test requirement and which is not expected to be encountered in field service or (2) induced by operator or maintenance personnel.

Failure, Relevant: Any failure that can be expected to occur in subsequent field service and is due to the inherent failure characteristics of the system/equipment.

Failure Rate: The total number of failures within an item population divided by the total number of life (time) units expended by that population during a particular measurement interval under stated conditions. This definition assumes that the exponential reliability distribution is applicable for systems/equipments. Failure rate is expressed in units of failures per  $10^6$  operating hours.

Independent Variable: A variable (designated by X) whose value can be measured without error which may potentially influence the reliability measure (dependent variable). Independent variables may be categorical (e.g., environment) or continuous (e.g., temperature).

Mean-Time-Between-Failures (MTBF): The mean of the distribution of time intervals between failures, during which time the item performs as specified.

Mean-Time-Between-Failures (MTBF) Observed: The total measured operating time of a population of equipments divided by the total number of failures within the population during the measured period of time. MTBF values or MTBF lower bounds were computed as indicated for the following three cases:

(a) Series (Logistic) MTBF:

$$MTBF = T/R$$

where:

R = sum of all failures

T = sum of equipment operating hours

(b) Functional MTBF:

$$MTBF = T/R$$

where:

R = sum of relevant failures resulting in system failure. (This sum differs from case (a) where redundancy exists or where graceful degradation or degraded modes of operation can be tolerated.)

T = sum of system operating hours

(c) Zero Failures: If no failures have occurred, the lower 50% confidence limit ( $MTBF_{LL}$ ) for a time-truncated test was used to provide lower bound on MTBF, and is given by:

$$MTBF_{LL} = \frac{2T}{\chi^2_{(0.25:2(r+1))}}$$



where:

T = operating hours

r = number of failures

$\chi^2(0.25, 2(r+1))$  = the appropriate value of the Chi-square distribution with  $2r$  degrees of freedom at a significance of 0.25 ( $\alpha=25\%$ ).

When  $r = 0$ ,

$$MTBF_{LL} = \frac{2T}{\chi^2(0.25:2)}$$

Mean-Time-Between-Failures (MTBF) Predicted: The predicted MTBF (series or logistic) of the item's predicted failure rate. The predicted failure rate of an item is computed from the observed or assessed failure rates of its parts, taking into account the design of the item, and the stated conditions of use. The failure rate prediction is generally performed in accordance with the applicable version of MIL-HDBK-217.

Mean-Time-Between-Maintenance (MTBM): A measure of reliability taking into account all maintenance policies and actions. The total number of life units expended by a given time divided by the total number of maintenance events (scheduled and unscheduled) due to that item.

Mean-Time-Between-Maintenance-Actions (MTBMA): The total time in hours divided by the total number of maintenance (Base Level) events due to inherent malfunctions, induced malfunctions and no defect events. When so specified, maintenance events due to preventive maintenance may also be included in the calculation.

Mean-Time-Between-Preventive-Maintenance (MTBPM): The mean of the distributions of the time intervals between preventive maintenance events.

Multiple Linear Regression Analysis: Regression analysis is an important statistical tool used to determine the relationship between the dependent variable and the independent variable(s). Related methods of covariance analysis are used to deal with discrete (categorical) independent variables. The subject of regression analysis is thoroughly explained by Draper and Smith, in "Applied Regression Analyses" Wiley 1966.

Program Phase (PP): The phase of the equipment life cycle to which the data apply. The program phases are:

Development  
Production  
Operation

Reliability: The probability that a given system/equipment will perform its specified functions when used in the manner and for purpose intended, for a specified performance period (which may be expressed in time, cycles, etc., as appropriate).

Reliability Parameter (RP): The reliability parameters delineated in this document are:

Series (Logistic) MTBF  
Functional MTBF  
Mean-Time-Between-Maintenance  
Actions (MTBMA)  
Mean-Time-Between-Preventive  
Maintenance (MTBPM)  
Mean-Time-Between-Maintenance (MTBM)

R-Squared Coefficient: When using a linear model, such as regression analysis, to analyze the data, the  $R^2$  coefficient (or multiple coefficient of determination) is equal to the ratio of the sum of squares of the variance explained by the regression to the sum of the squares of the total variance of the observed data. The  $R^2$  value is used as a means to determine the "goodness-of-fit" of a regression model. The coefficient ranges from 0 to 1.0. A coefficient value of 1.0 indicates a perfect fit between the model and observed data, zero indicates no fit.  $100R^2$  is the percent variability explained by the regression model.

Sample Size: Quantity of equipments under test or in field operation inventory.

Test Operate Hours: The summation of equipment on-time for all equipments under test or in inventory.

Test Non-Operate Hours: The summation of equipment off-time for all equipments under test or in inventory.

**STATISTICAL  
AND  
GRAPHICAL ANALYSIS**

## DATA ANALYSIS

The data analysis to support this system reliability data compilation consisted of the three following tasks:

- (1) Graphical analyses to assess the credibility of the reliability prediction
- (2) Graphical analyses to identify prediction biases
- (3) Regression analyses to investigate system/equipment level reliability prediction models

The first data analysis task was to plot the system/equipment field MTBF against the predicted MTBF. This allows for an objective evaluation of reliability prediction capabilities for a variety of equipment functional groups and environments. This analysis procedure was then repeated for observed reliability during reliability demonstration testing.

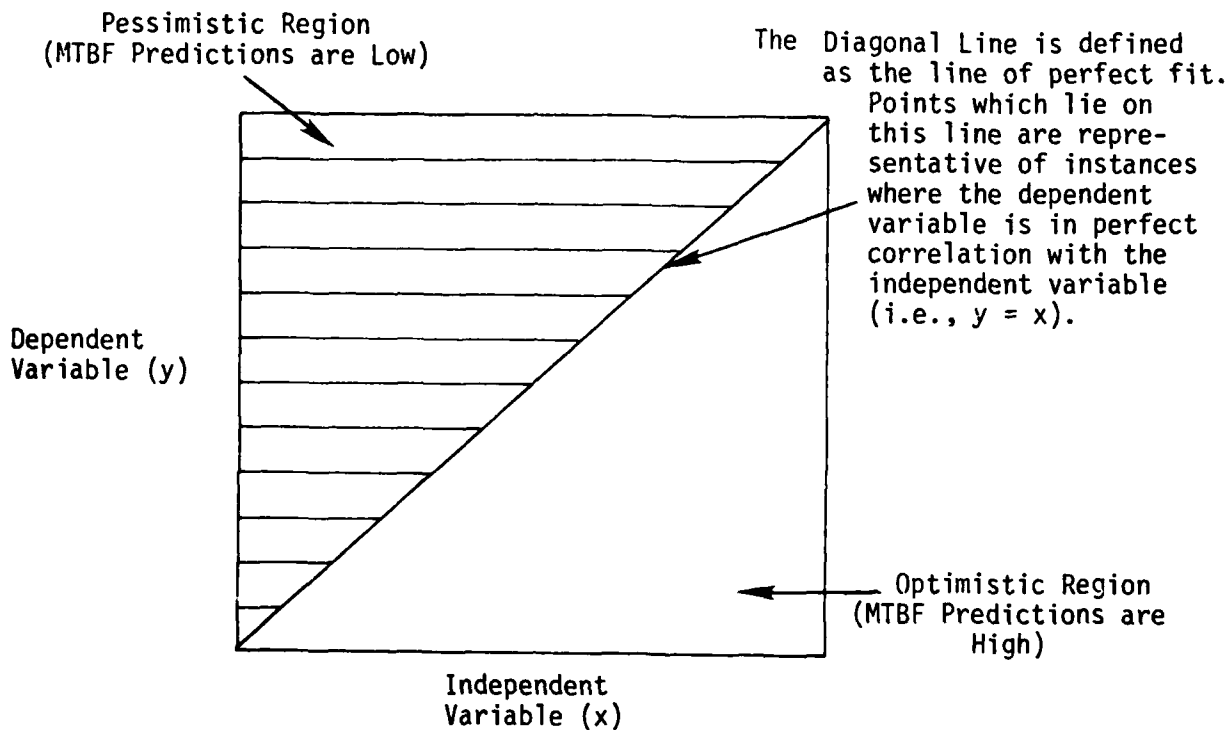
The second analysis task was to graph the ratio of field MTBF to predicted MTBF versus a third variable. Any trends observed would then indicate failure rate prediction biases. In this analysis, the MTBF ratio was plotted against the number of active elements and against the application environment.

The third analysis task was to perform regression analyses on the data base to detect and model those (independent) variables which affect reliability. Regression solutions were found using least squares to define reliability expressions relating the observed field or reliability demonstration MTBF to several independent variables including the predicted MTBF, the number of active elements, the application environment and the equipment functional category. The regression solutions are presented in this analysis section together with an indication of "goodness-of-fit."

## GRAPHICAL ANALYSIS

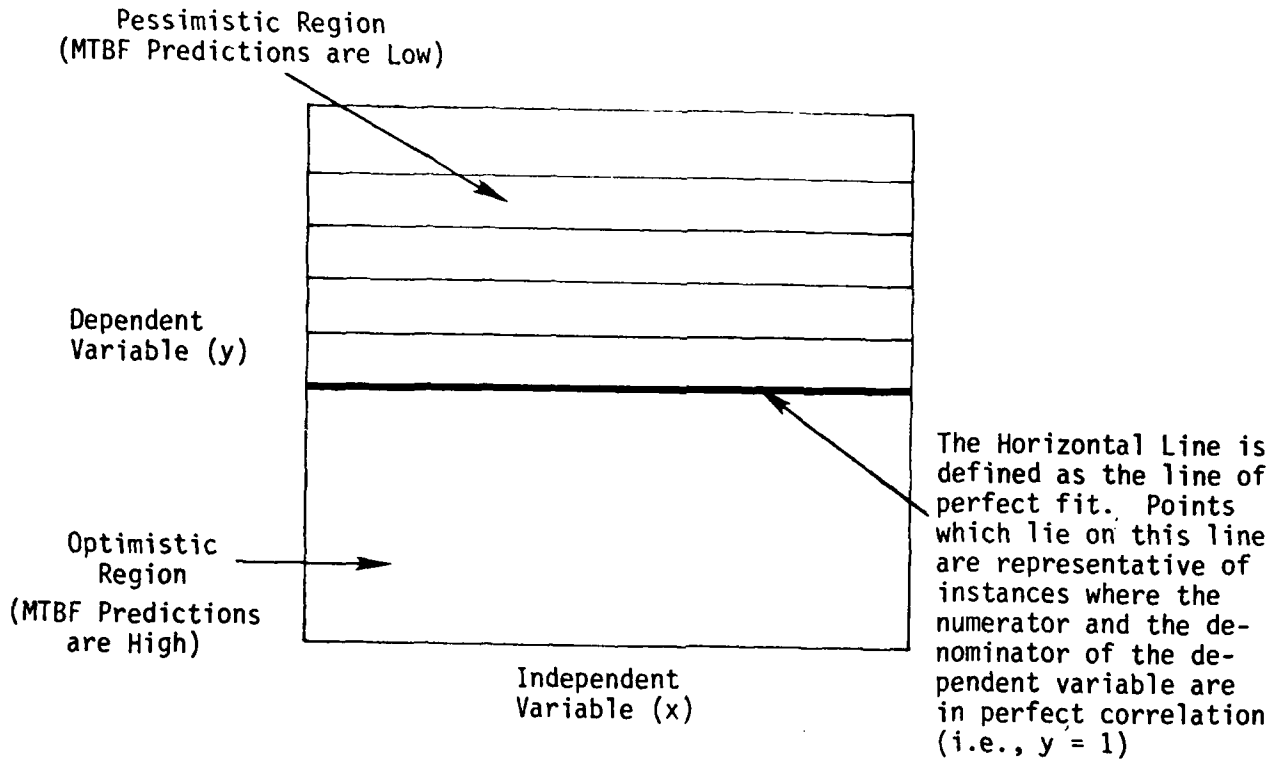
The plots presented in this section are constructed in two basic forms and the following examples are given as a reference for the analysis which follows:

### EXAMPLE 1:



In Example 1, data points which appear to the left of the diagonal in the shaded area are examples of points which had higher x values relative to their corresponding y values (pessimistic region); conversely, the data points which appear to the right of the diagonal are examples of points which had higher y values in reference to their corresponding x values (optimistic region).

EXAMPLE 2:



In Example 2, data points which appear above the line of perfect fit (in the shaded area) are examples of points which had lower denominator values relative to their corresponding numerator values (pessimistic region); conversely, the data points which appear below the line of perfect fit are examples of points which had higher denominator values in reference to their corresponding numerator values (optimistic region).

Table 1, "Graphical Analysis Matrix," serves as an index to the graphs which follow. The matrix includes the figure numbers, the figure example number (either 1 or 2 as previously depicted), the dependent variable, the independent variable and the equation which defines the line of perfect fit.

Since Figures 1 through 12 are defined with a common x value (reliability prediction MTBF) certain inferences are similar for all plots. For instance, points which appear in the shaded area (all points with greater y values than x values) represent data with higher predicted MTBFs in relation to observed MTBFs. This condition represents reliability predictions that are pessimistic relative to the observed reliability. The converse is also true. Reliability predictions which are determined to be less than the corresponding observed reliability (all points with greater x values than y values) are considered optimistic, and points representing this condition are found to the right of the diagonal.

The ratio denominator values (predicted MTBF), common for Figures 13 through 36, can also be illustrated as being either optimistic or pessimistic. Points in the shaded region are considered to have pessimistic predictions, those points with higher predicted MTBFs than observed MTBFs. Points in the unshaded region are considered to have optimistic predictions, those points with lower predicted MTBFs than observed MTBFs.



TABLE 1:  
GRAPHICAL ANALYSIS MATRIX

FIGURE NUMBERS	FIGURE EXAMPLE NUMBER	DEPENDENT VARIABLE (Y)	INDEPENDENT VARIABLE (X)	LINE OF PERFECT FIT
1-6	1	MTBF <sub>FIELD</sub>	MTBF <sub>PRED</sub>	MTBF <sub>FIELD</sub> = MTBF <sub>PRED</sub>
7-12	1	MTBF <sub>REL-DEMO</sub>	MTBF <sub>PRED</sub>	MTBF <sub>REL-DEMO</sub> = MTBF <sub>PRED</sub>
13-18	2	$\frac{MTBF_{FIELD}}{MTBF_{PRED}}$	Environment	MTBF <sub>FIELD</sub> = MTBF <sub>PRED</sub>
19-24	2	$\frac{MTBF_{FIELD}}{MTBF_{PRED}}$	# Active Elements	MTBF <sub>FIELD</sub> = MTBF <sub>PRED</sub>
25-30	2	$\frac{MTBF_{REL-DEMO}}{MTBF_{PRED}}$	Environment	MTBF <sub>REL-DEMO</sub> = MTBF <sub>PRED</sub>
31-36	2	$\frac{MTBF_{REL-DEMO}}{MTBF_{PRED}}$	# Active Elements	MTBF <sub>REL-DEMO</sub> = MTBF <sub>PRED</sub>

## GRAPHICAL RELIABILITY PREDICTION EVALUATIONS

The figures presented on the following pages are graphical representations of the data contained in the report. Each plot provides data on a specific equipment category (e.g., Electronic Warfare, Controls/Displays, etc.) which operates under varying environmental conditions. Plotting the data in this manner allows objective decisions to be made regarding the significance of environmental impact on equipment reliability.

The data is comprised of both set-level and LRU (Line Replaceable Unit) information which often has very high predicted and field MTBF values. This, therefore, explains the seemingly obtrusive limits depicted in many of the plots. Log scales are utilized for each of the plots to facilitate visual continuity and improve the interpretive value. The intervals defined for the areas which lie to either side of the line where the ratio is equal to one represent similar distances; that is, the difference between positive and negative values are equal in magnitude and will appear equal distance about the line of perfect fit.

The analysis begins with a set of plots which show the relationship between equipment-level field MTBF and predicted MTBF. The plots exhibit the degree of correlation which exists between these two parameters and invites unbiased evaluation. This method also enables the user to determine whether the predicted MTBF is optimistic or pessimistic (if not in perfect agreement) when compared to the observed field reliability. The process is repeated to examine the relationship between reliability demonstration test data and predicted data.

Figures 1 through 6 display the first set of plots where the y-axis, field MTBF, is plotted against the x-axis, predicted MTBF. The diagonals transposed on the plots represent the line where field MTBF equals predicted MTBF and a point on this line therefore indicates perfect agreement. It is thus expected that the points would be

centered around this line closely if formal MIL-HDBK-217 reliability prediction is an accurate means of predicting the failure characteristics of equipment operating in the field. A number of the plots indicate that the field reliability is less than the corresponding predicted reliability. Figures 1, 2, 3 and 5 displays this trend where the majority of points lie to the right of the diagonal; this is particularly true for equipments operating in the air environment. Conversely, the points representing ground and naval environmental data are generally dispersed either symmetrically about the line or above it, indicating that the predictions are generally accurate or pessimistic in relation to the observed reliability. This is best represented in Figures 2, 4 and 5.

The dispersion of the individual data points in each of these six plots is relatively high. This can be attributed to the use of field data in the analyses since data collected from the field is subject to a variety of different mission profiles, each with unique environmental stress levels. The data does establish a trend, however, whereby an increase in the predicted MTBF corresponds to an increase in the field MTBF indicating that a fairly good relationship between the two does exist.

Figures 7 through 12 are similar to the previous set (1-6) except that the y-axis variable reflects reliability demonstration MTBF. Consequently, the variability of the data is reduced substantially due to the better control of the independent variable, and the degree of correlation between the reliability demonstration data and the predicted is better than that of the field data. Reliability demonstration test data may not be a true indicator of reliability, however, since operational and environmental testing conditions are tightly controlled. This must be considered when evaluating the results.

The reliability demonstration plots also show the optimistic effects of the predicted values associated with the air environment, already noted from the field data (Figures 1 through 6). This is depicted in Figures 7, 8, 9, 10 and 11. Figure 9 particularly highlights this phenomenon and also indicates that the demonstrated reliability values associated with the naval data are in close agreement with the reliability predictions.

The dispersion of the individual data points presented in each of the plots (Figures 1 through 12) is relatively high for both cases of field and reliability demonstrated data. Even though there is a large degree of variability in the data there is also a trend which appears throughout the plots. This trend is characterized by point values which increase in the x-axis direction corresponding to increases in the y-axis direction. The increase translates visually to a general shift in the data points from the lower left to the upper right-hand corner of the plots. This is to be expected since an equipment calculated to have a large predicted MTBF should be accompanied by a relatively similar reliability demonstrated or field MTBF.

It is interesting to note Figures 3 and 9. Figure 3 shows the plot of field MTBF versus predicted MTBF for Guidance/Navigation equipment operating in air, ground and naval environments. The observation indicates that the ground-operating equipments were pessimistically predicted and the points are found primarily to the left of the diagonal.

Figure 9, on the other hand, representing reliability demonstrated versus predicted data, shows that the performance of ground-operating equipment under demonstration testing falls in the optimistically predicted region of the plot (to the right of the diagonal). The air and the naval data points seem to be unaffected by the source of the data and ultimately represent a better correlation between the predicted, the reliability demonstrated and the field MTBFs of Guidance/Navigation equipment operating in either air or naval environments.

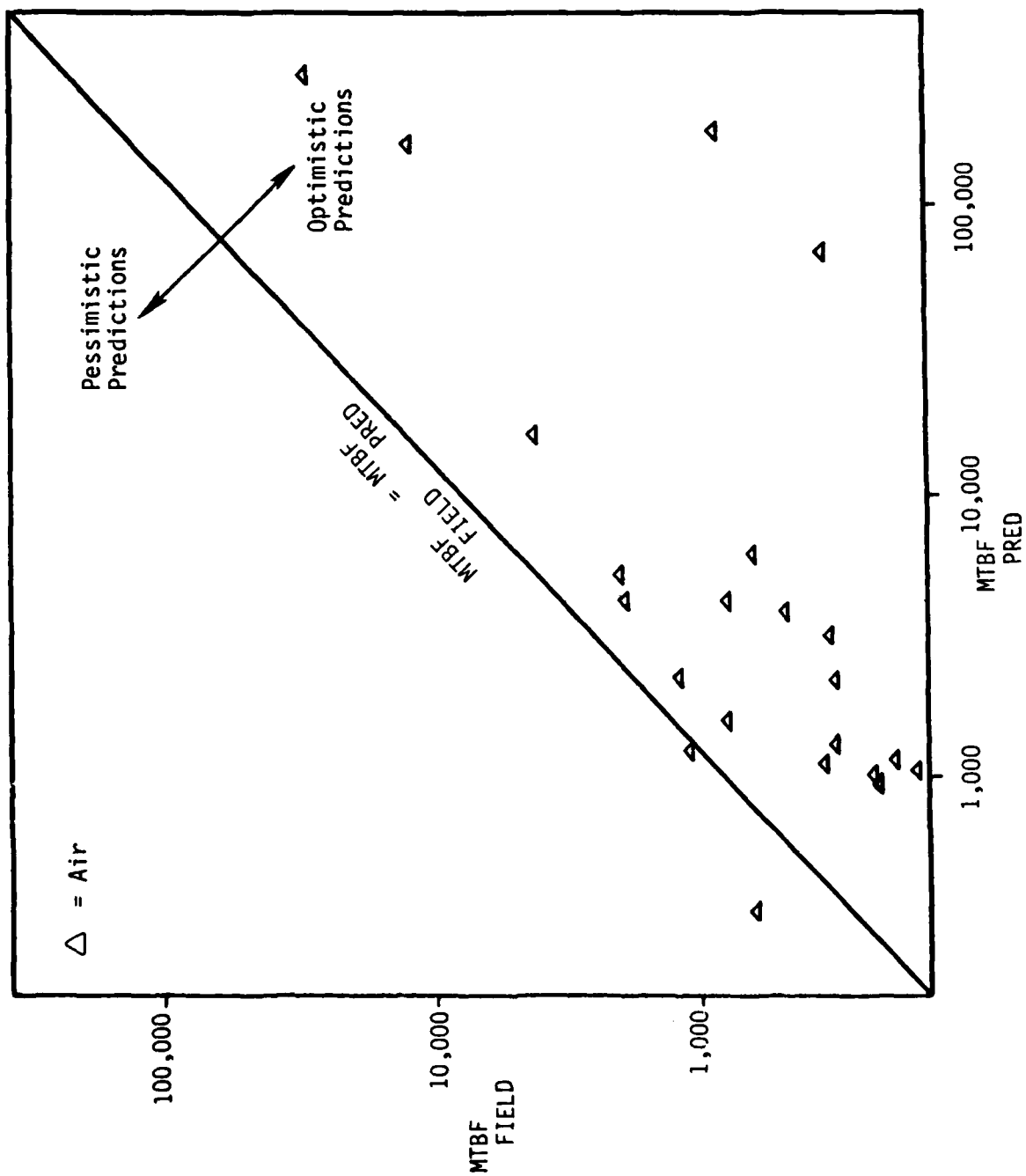
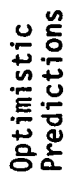
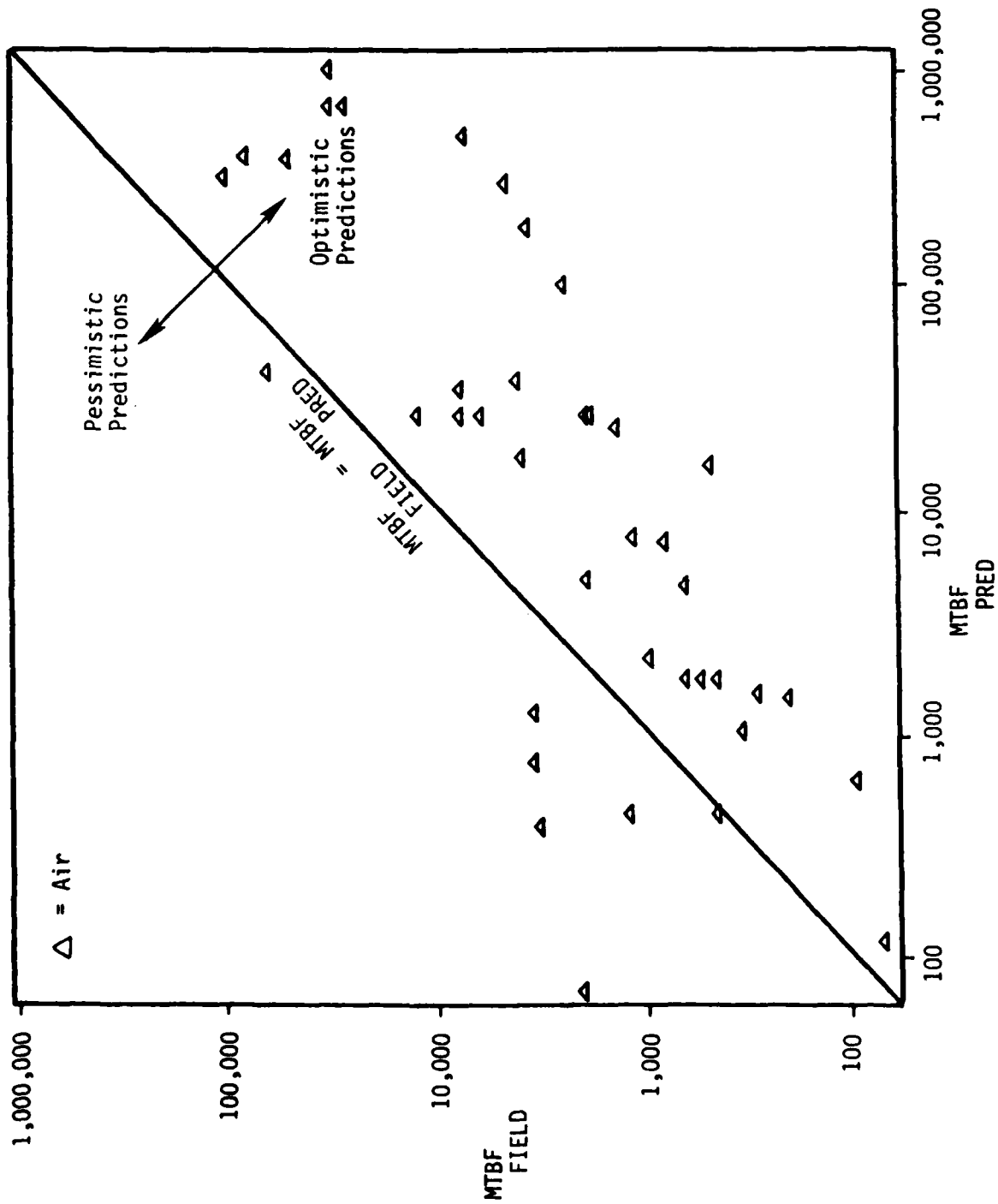


FIGURE 1: CONTROLS/DISPLAYS FIELD MTBF  
VERSUS PREDICTED MTBF



**FIGURE 2: ELECTRONIC WARFARE FIELD MTBF  
VERSUS PREDICTED MTBF**

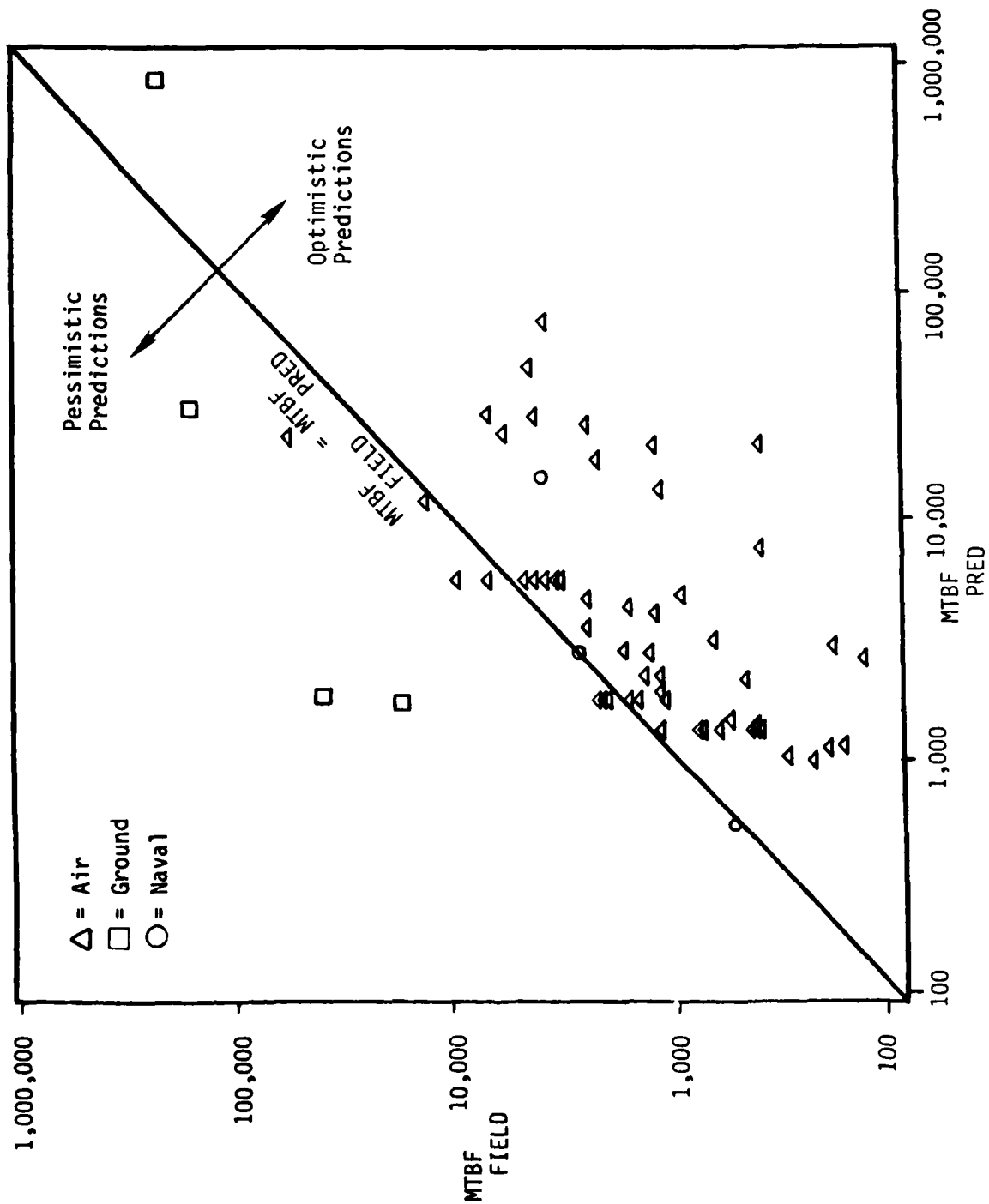


FIGURE 3: GUIDANCE/NAVIGATION FIELD MTBF  
VERSUS PREDICTED MTBF

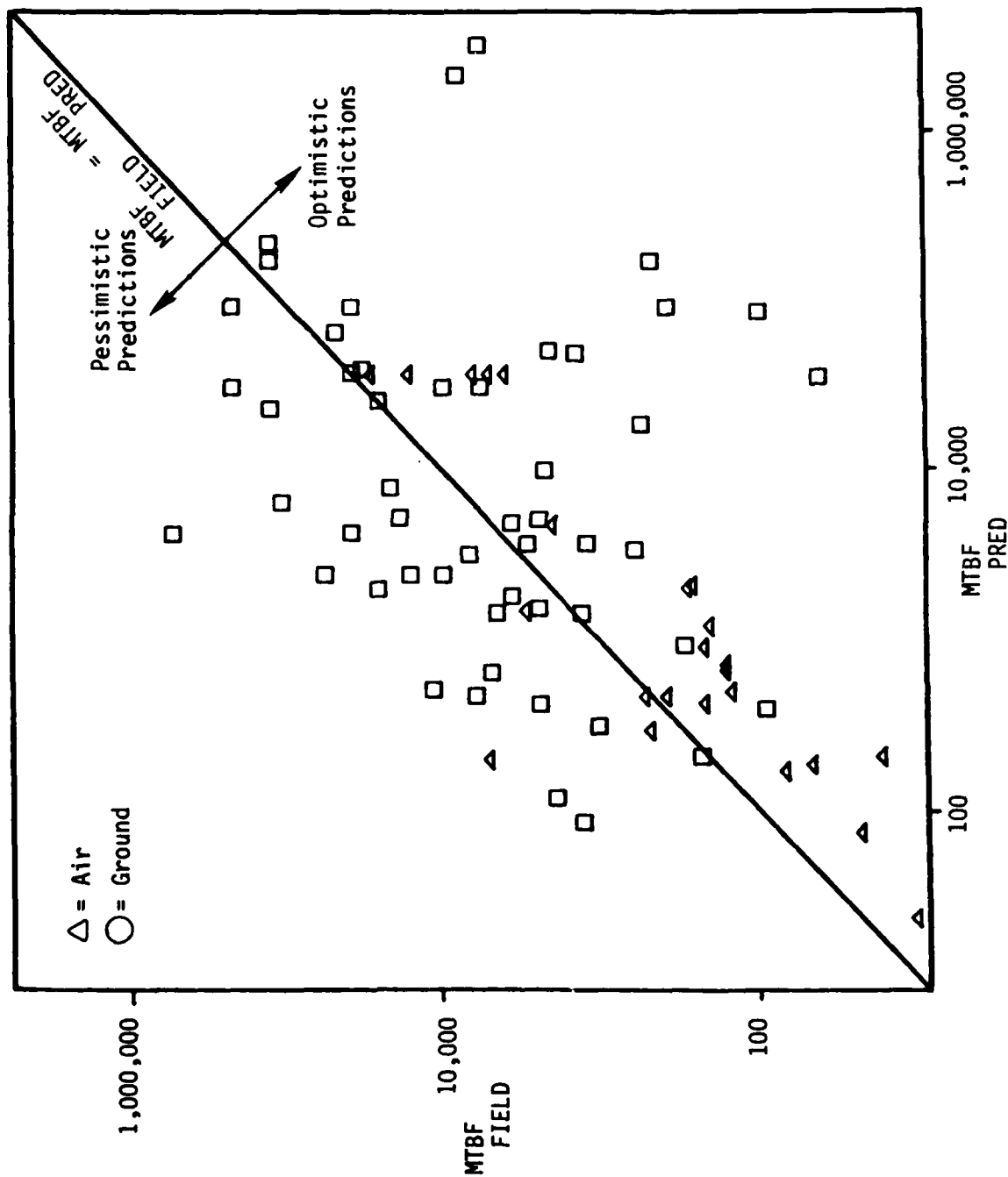


FIGURE 4: RADAR FIELD MTBF VERSUS PREDICTED MTBF



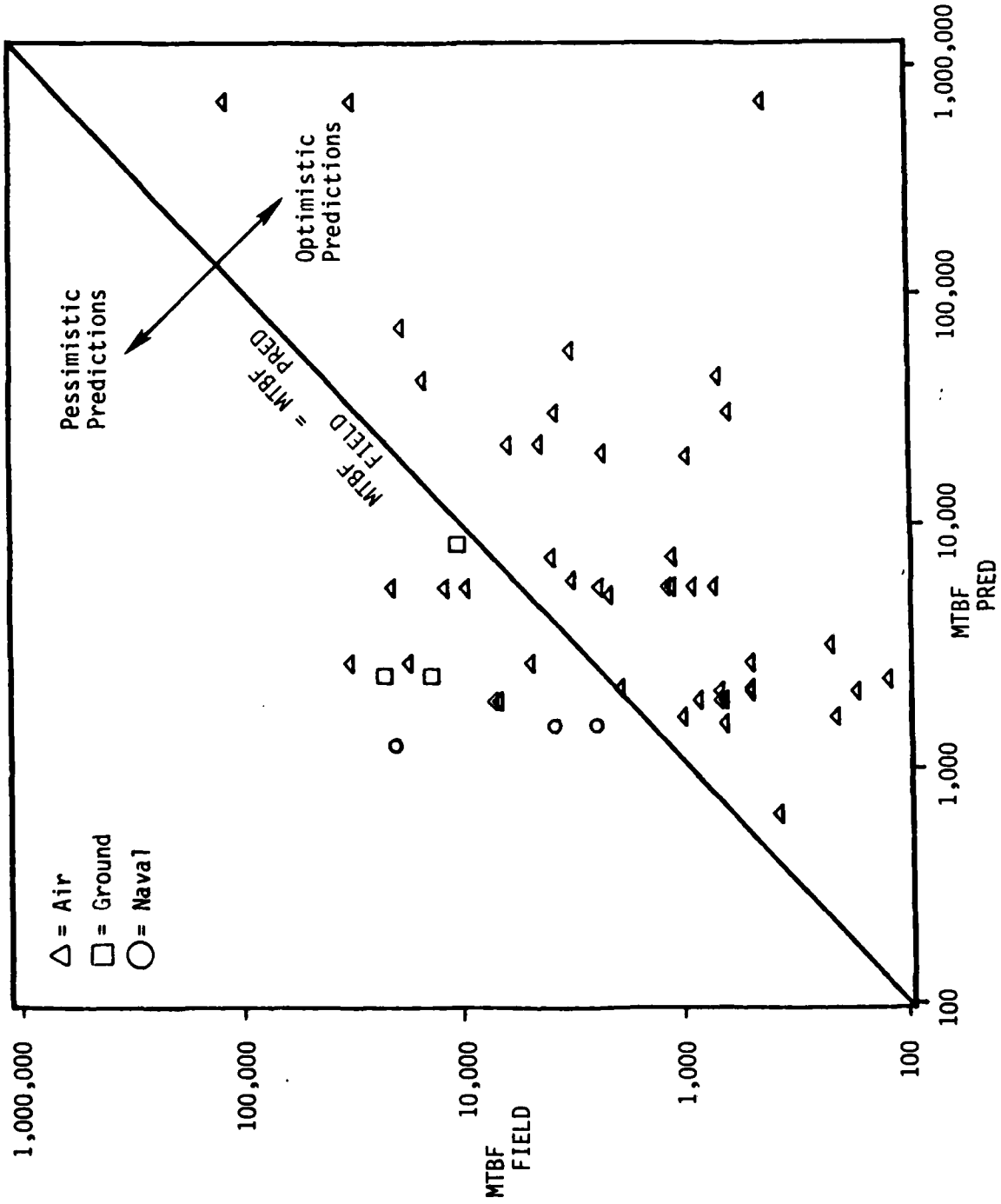


FIGURE 5: COMMUNICATIONS FIELD MTBF VERSUS PREDICTED MTBF



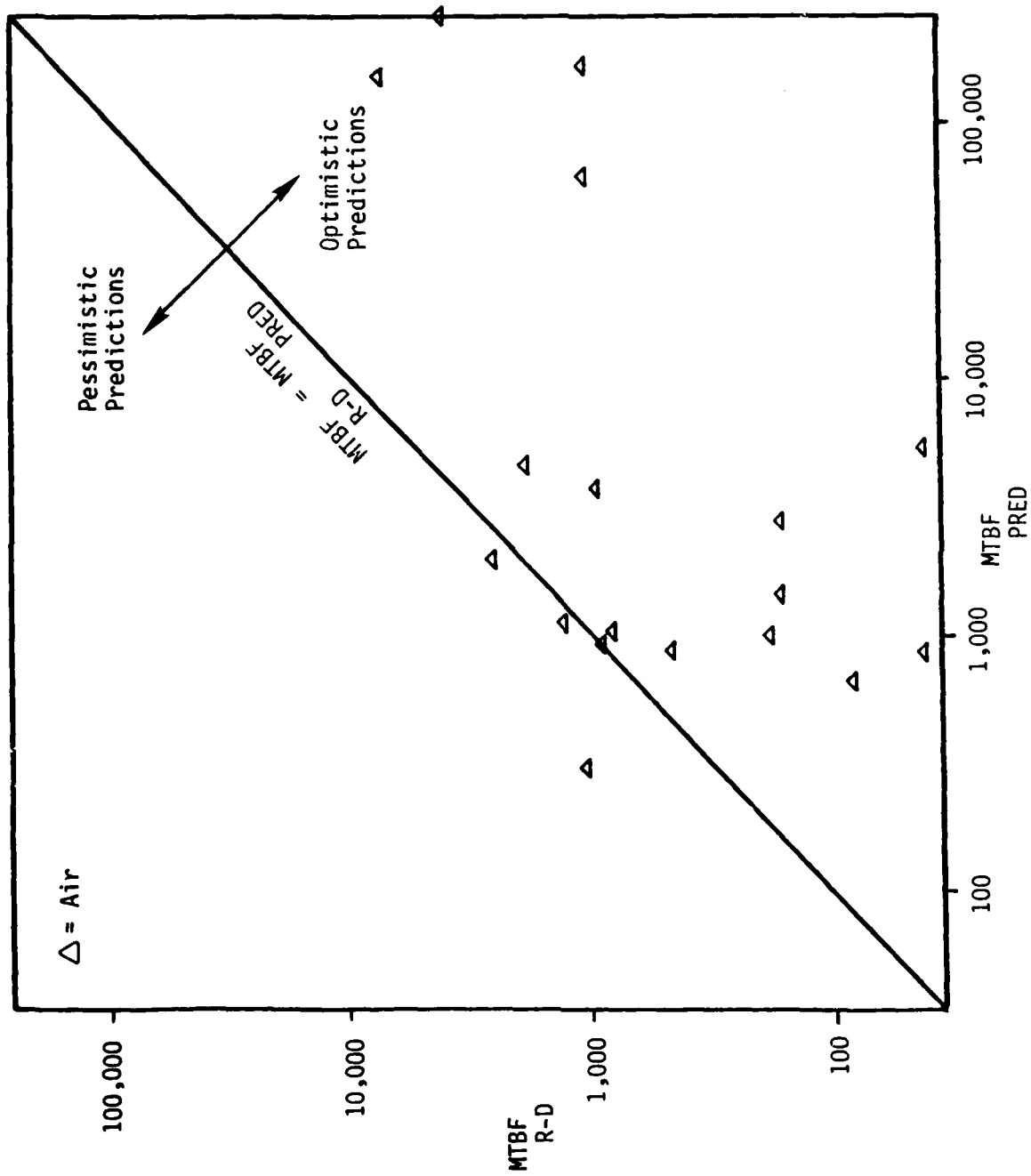


FIGURE 7: CONTROLS/DISPLAYS RELIABILITY  
DEMONSTRATION MTBF VERSUS PREDICTED  
MTBF

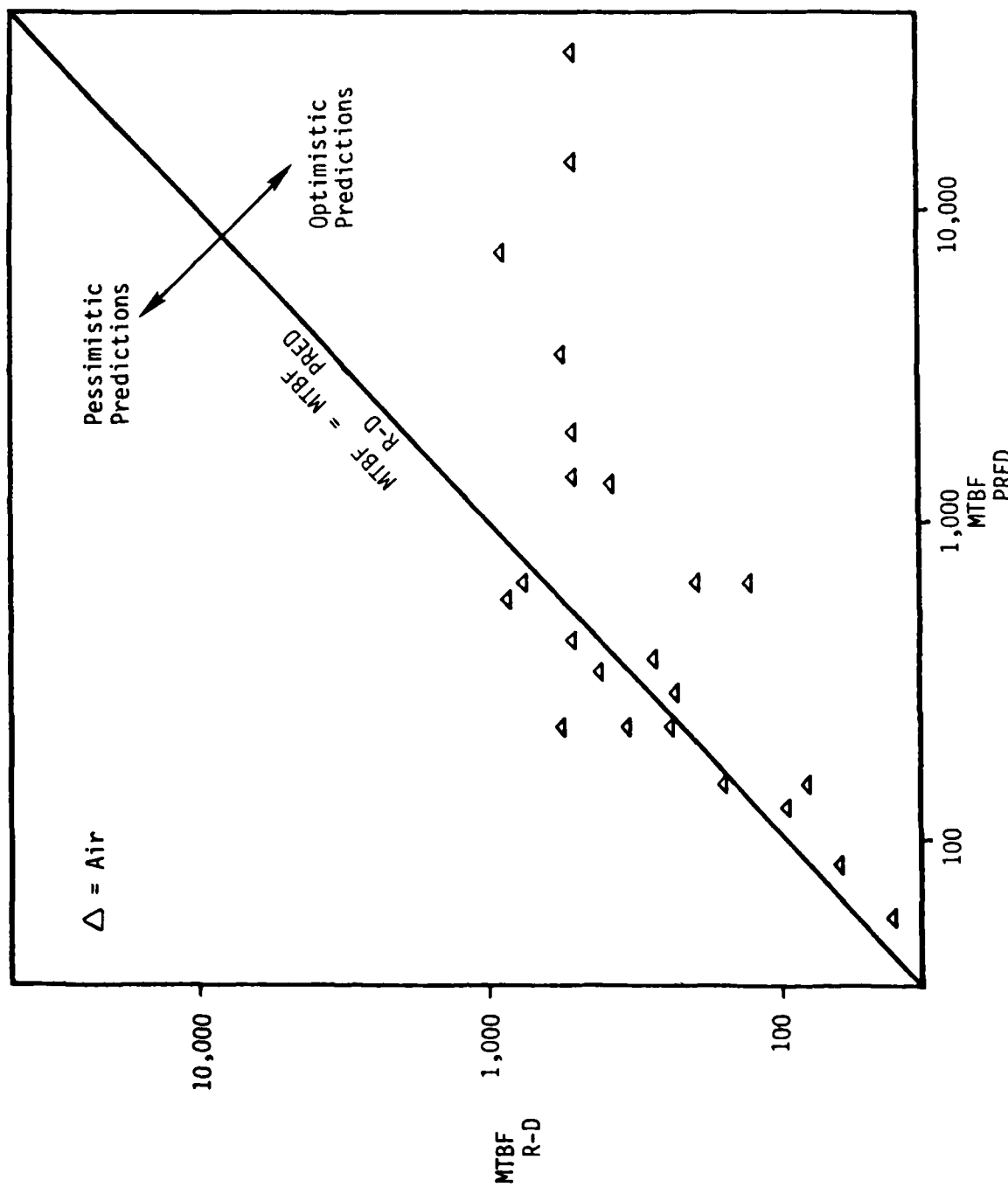


FIGURE 8: ELECTRONIC WARFARE RELIABILITY  
 DEMONSTRATION MTBF VERSUS PREDICTED  
 MTBF

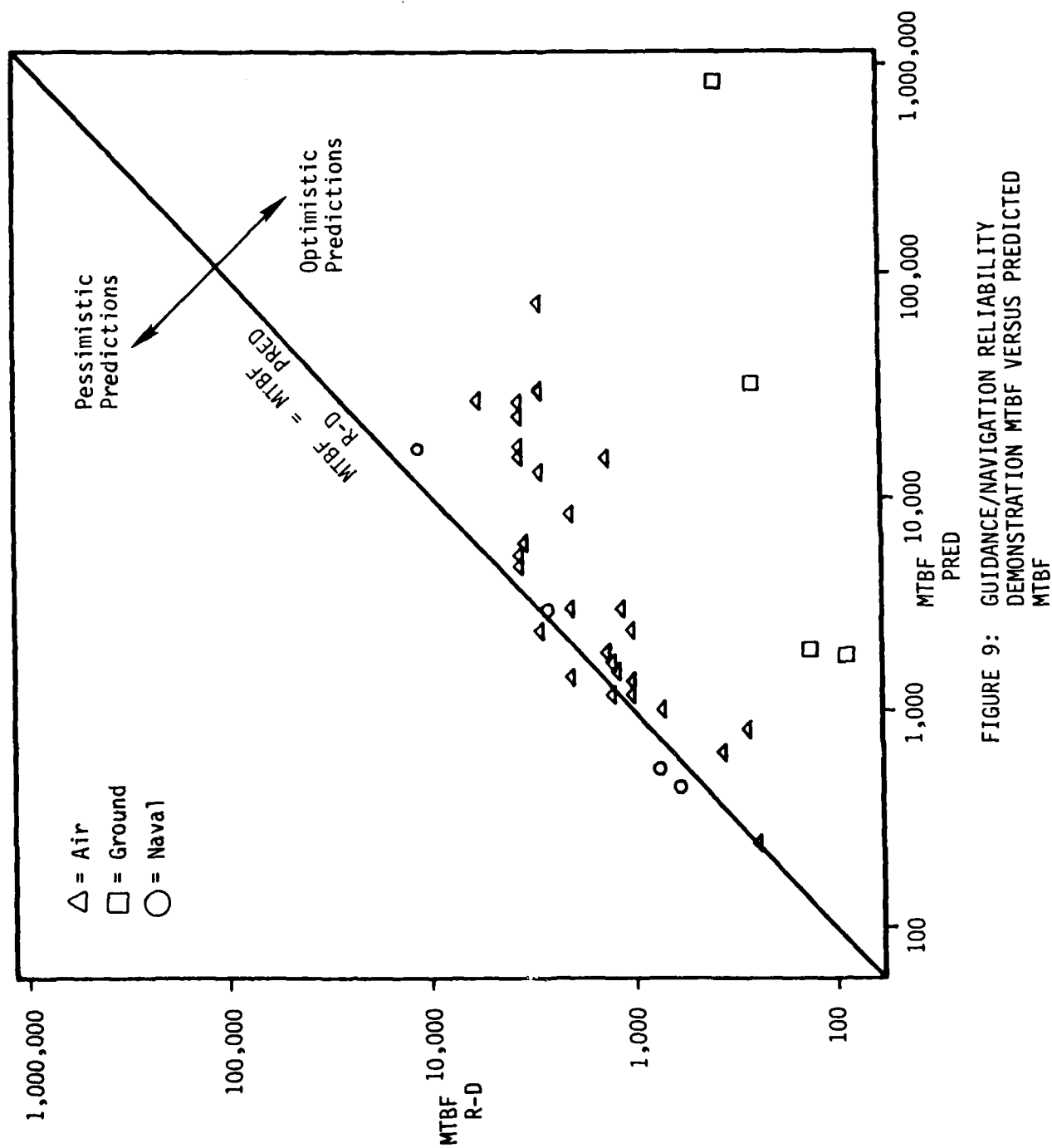
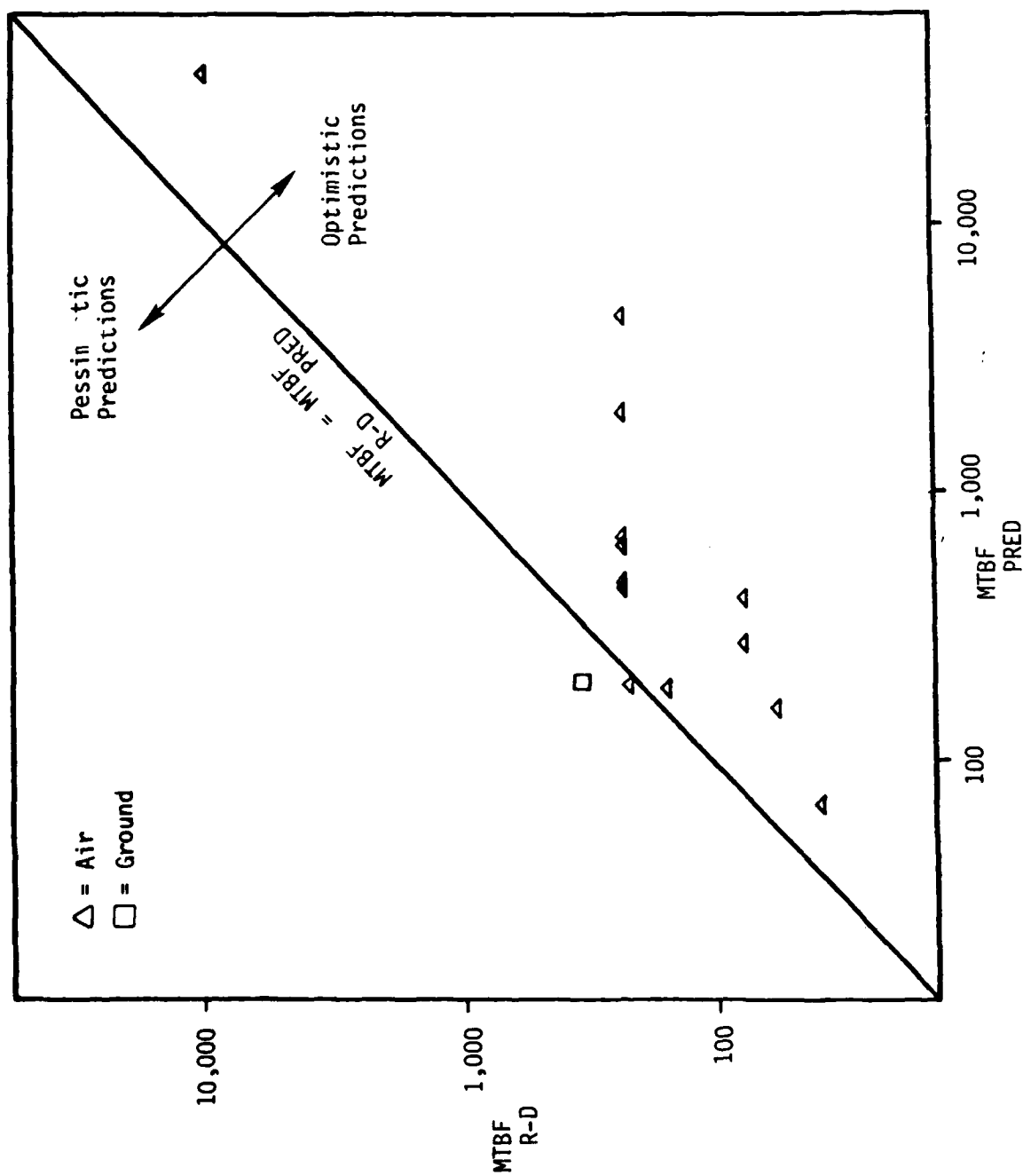


FIGURE 9: GUIDANCE/NAVIGATION RELIABILITY DEMONSTRATION MTBF VERSUS PREDICTED MTBF



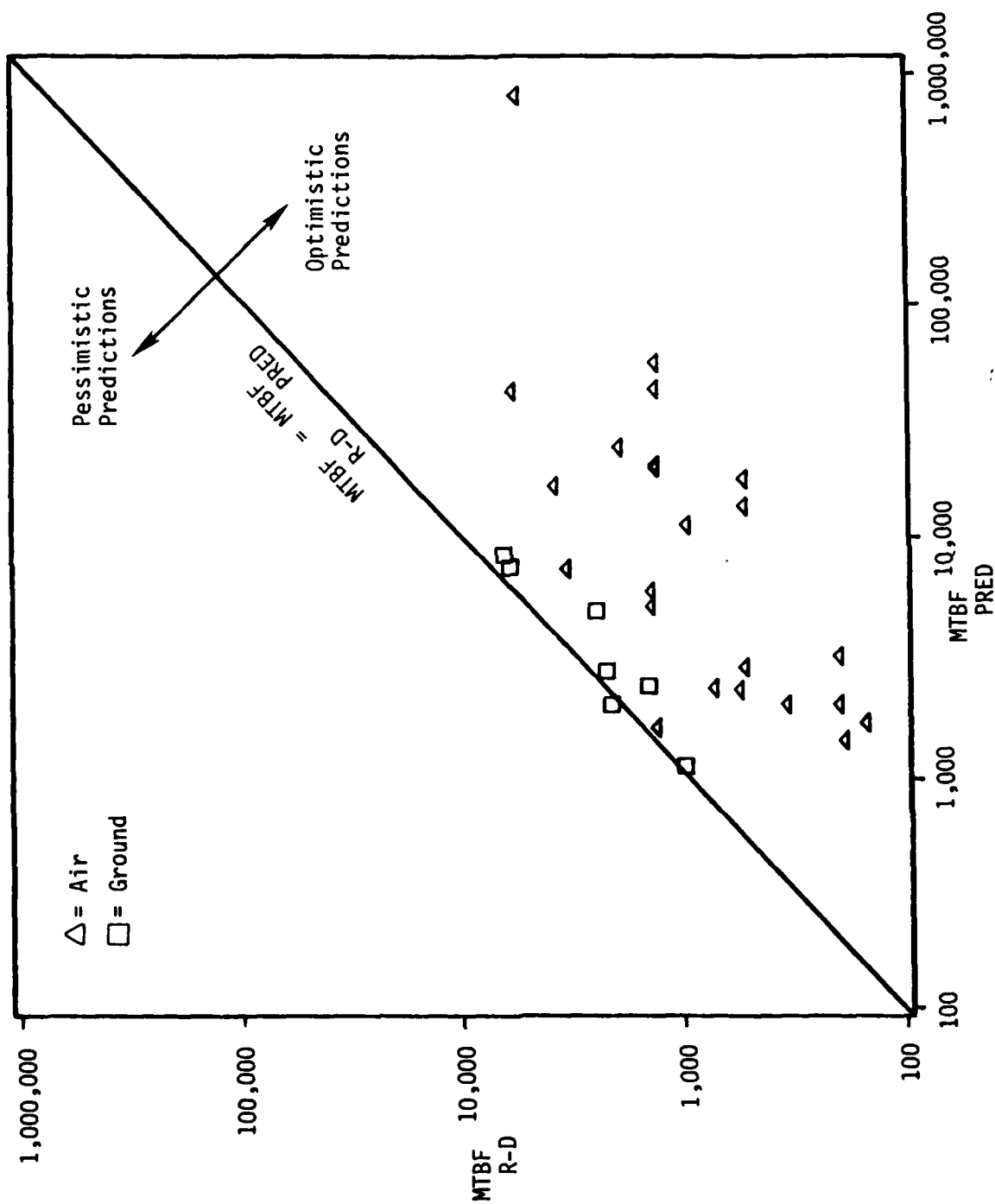


FIGURE 11: COMMUNICATIONS RELIABILITY  
DEMONSTRATION MTBF VERSUS  
PREDICTED MTBF

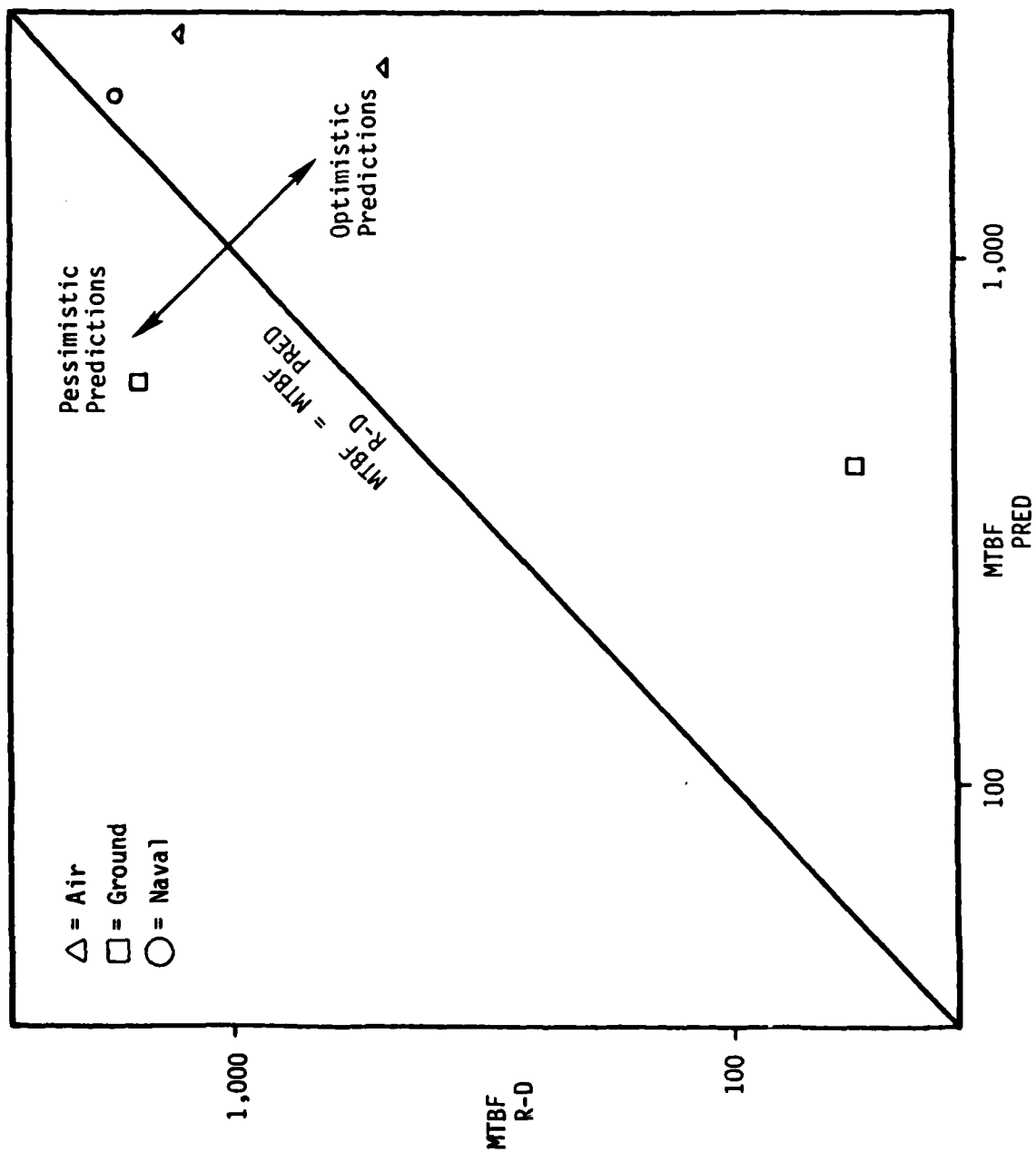


FIGURE 12: COMPUTER RELIABILITY DEMONSTRATION  
MTBF VERSUS PREDICTED MTBF



## GRAPHICAL PREDICTION BIAS EVALUATIONS

The analysis changes its scope to investigate the occurrences of failure rate prediction biases present in the data. Of particular interest is how the number of active elements and the application environment impart an influence over equipment reliability.

Figures 13 through 18 are plotted with the y-axis showing the ratio of field MTBF to predicted MTBF and the x-axis showing operating environments. The ideal relationship between the field and predicted MTBFs would be represented by a plot of the points centered on the line where  $y = 1$ . We will refer to this as the line of perfect fit. This would indicate that, on average, the predictions were equal to the field observations and thus the prediction models precisely forecast the reliability of equipment operating under field conditions. This is, of course, the ultimate goal of the models, but in reality perfect correlation rarely (if ever) exists.

Figures 19 through 24 are constructed similarly, in that they share a common y-axis (the ratio of field MTBF to predicted MTBF); however, the x-axis environmental points are replaced with the number of active elements contained in the various equipments examined.

The data presented in each of these plots is found to be distributed log-normally. Examinations of each of the plots generally indicate that the mean of the distributions for air data is less than one. This trend indicates that failure rate predictions are generally optimistic toward air-environment equipments, here represented by the abundance of points in the plotting region where field MTBF is lower than predicted MTBF. Figures 13, 15 and 16 are particularly good examples of this phenomenon where the air environment data points are almost exclusively shown below the line of perfect fit.

Figure 16 shows that the data specific to radar operating in the air environment is consistent with the trend where the predictions were calculated to give an optimistic value when compared to their associated field performance. The ground operating radars are shown to have a distribution where the mean is close to one (i.e.,  $\overline{MTBF_{PRED}}$  equals  $\overline{MTBF_{FIELD}}$ ). Even though the dispersion between the individual data points is high, it can be seen that the field MTBF is in closer agreement with the predicted MTBF for these ground points than for the air. Figures 17 and 18 display data for ground and naval-operating equipments where the points are distributed about the line of perfect fit or above it. The values calculated from the failure rate prediction models draw a pessimistic picture for ground and naval operating equipments. In reality, they perform better than expected in the field.

The large amount of scatter in the plots can be attributed to several factors relating to the use of field data in this segment of the analysis. The high degree of variability in field data can be explained by the inordinate number of unknown, indeterminable or highly variable parameters which impact equipment reliability in the field which are otherwise impossible to account for. Additionally, field data is subject to more error than other types of reliability data. Erroneous maintenance actions, operator-induced failures and inappropriate reporting procedures are primary causes of inconsistencies found in the data. Another reason for the variability in the ratio plots is that different revisions of MIL-HDBK-217 were used to compute the MTBF predictions. In general, the more recent revisions result in higher MTBF predictions. The appropriate revision of MIL-HDBK-217 is reported in the section titled "Program/Contract Characterization Data."

The next set of plots, Figures 25 through 30, show the relationship between the ratio of reliability demonstrated MTBFs and predicted MTBFs against a third factor representing operating environment. The demonstrated reliability data is generally less variable than the field data since the conditions for demonstration testing are more controlled than in field operation. Figures 31 through 36 are constructed similarly to Figures 25-30; however, the x-axis variable corresponds to the number of active elements contained in the equipment.

Observations made on this data set indicate that on the average the predicted MTBFs relate well to the reliability demonstrated MTBFs, even though many of the individual points deviate in either direction from the mean.

Figures 25 through 30 show a trend of increasing MTBF prediction accuracy as the number of active elements increases. The prediction is seemingly always optimistic for small numbers of active elements, consistently improving with increasing elements.

This type of phenomenon is often found in reliability data at the component level when plotted against total test time. Again, the accuracy of the component MTTF estimate increases as test time increases. This empirical phenomenon is supported (at the component level) by the relevant mathematical expressions for confidence intervals on the estimated component MTTF (or failure rate).

At the system level (Figures 26 through 30) the cause could be similar, with accuracy improving with the increasing number of active elements. It is not clear, however, whether the prediction accuracy improves or whether the MTBF estimate improves with the increasing number of elements. It is also possible that a third variable may have intervened (such as a coincidental correlation of test times with the number of active elements). Intuitively, it would be expected that the statistical characteristics and stability of MTBF estimates and predictions for large systems would be superior to those for smaller systems.

Figures 31 through 36 display an apparent trend in the data whereby the data shifts from the lower left-hand corner to the upper right hand corner. This shift represents an increasing correlation between the reliability demonstration data to the predicted data. Correspondingly, the relationship strengthens as a function of the number of active elements. Figures 32 and 33 representing Electronic Warfare and Guidance/Navigation equipments operating under air environmental

conditions are good examples of this reliability prediction bias. Even though this trend is clearly evident in several of the figures, more data under controlled circumstances (e.g., identical revisions of MIL-HDBK-217) is required to substantiate this finding.

The results of the graphical analysis indicate that reliability predictions calculated for equipments operating under air environmental conditions are generally proved to be optimistic with regard to their observed field reliability. Conversely, the predictions performed on ground or naval-operating equipments generally are shown to be calculated with an accurate or a pessimistic MTBF in relation to their observed field reliability. Additionally, a possible trend was identified whereby the prediction accuracy increases as the number of active elements increases. More research is required with a larger and more controlled data set to further study this issue.

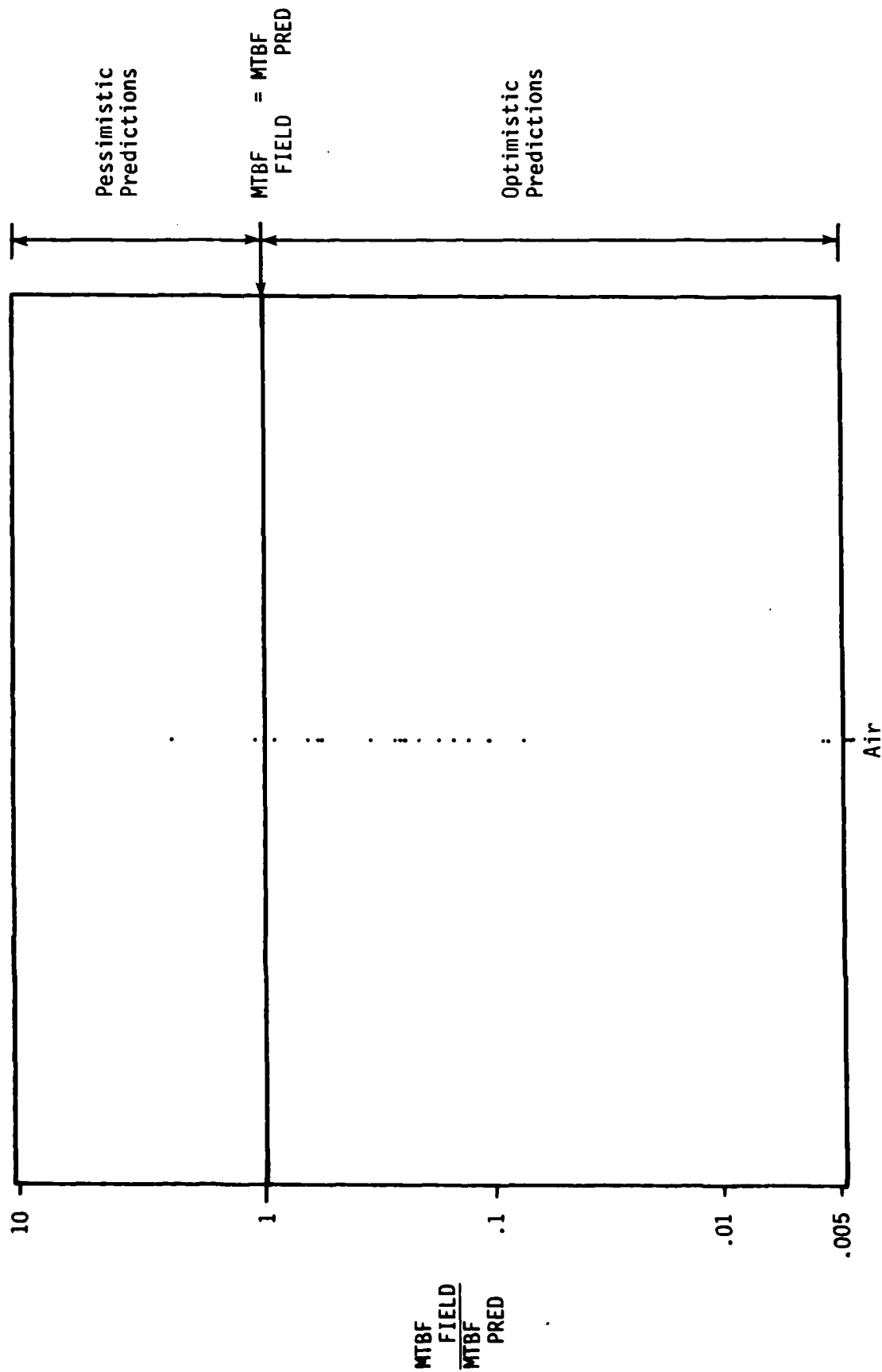


FIGURE 13: CONTROLS/DISPLAYS MTBF RATIO  
DISTRIBUTIONS VERSUS ENVIRONMENT

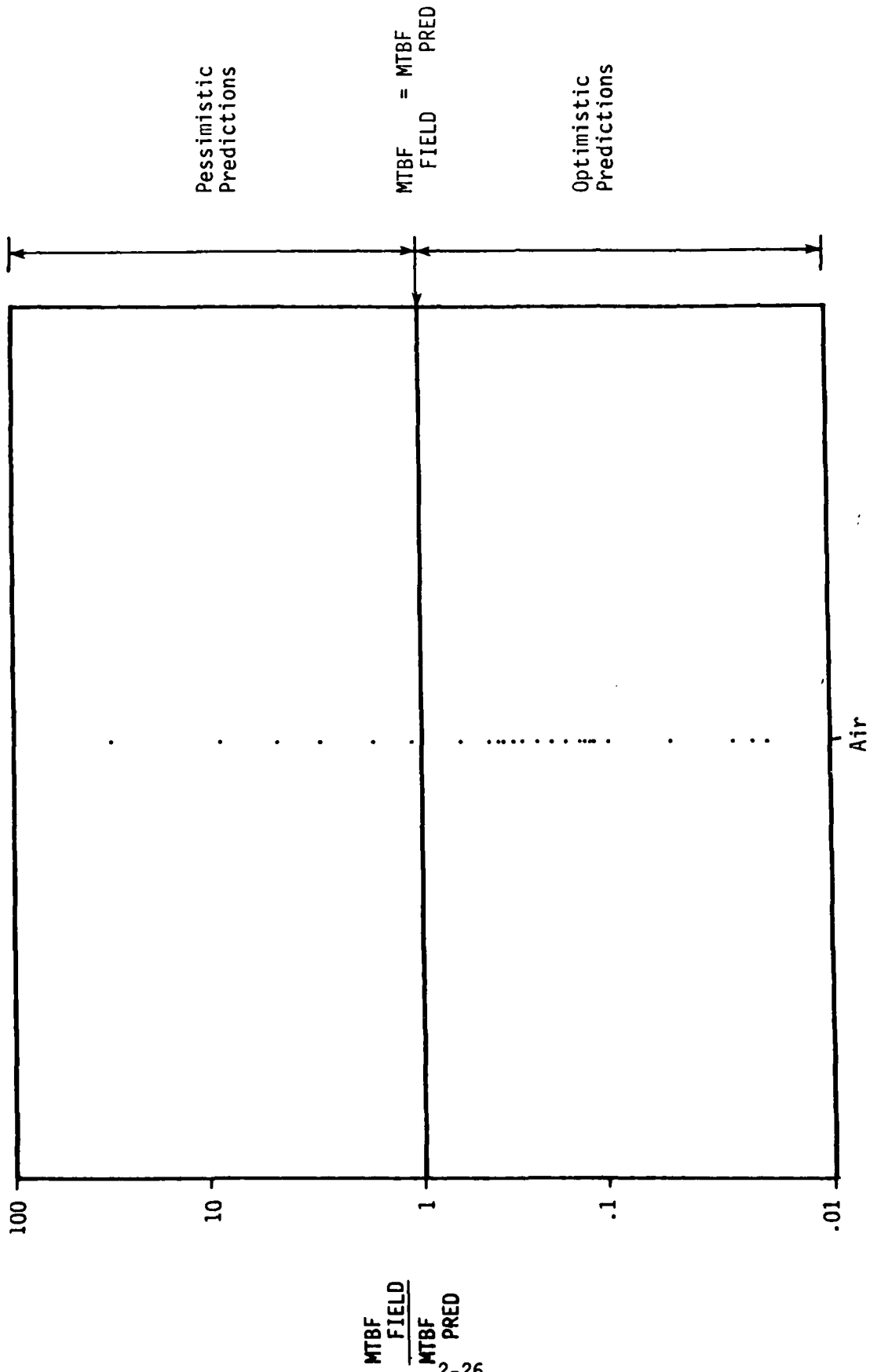


FIGURE 14: ELECTRONIC WARFARE MTBF RATIO  
DISTRIBUTIONS VERSUS ENVIRONMENT

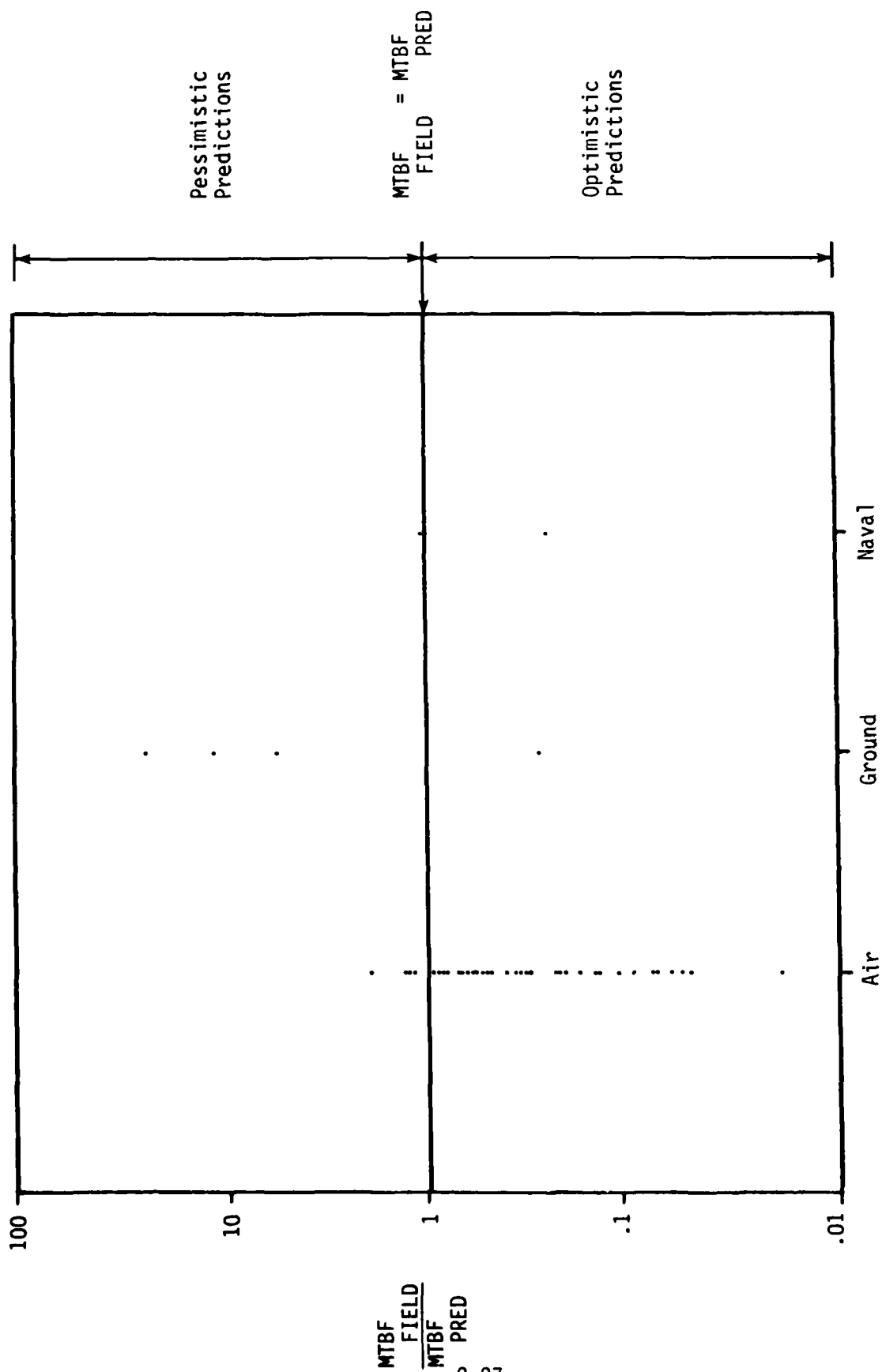


FIGURE 15: GUIDANCE/NAVIGATION MTBF RATIO DISTRIBUTIONS VERSUS ENVIRONMENT

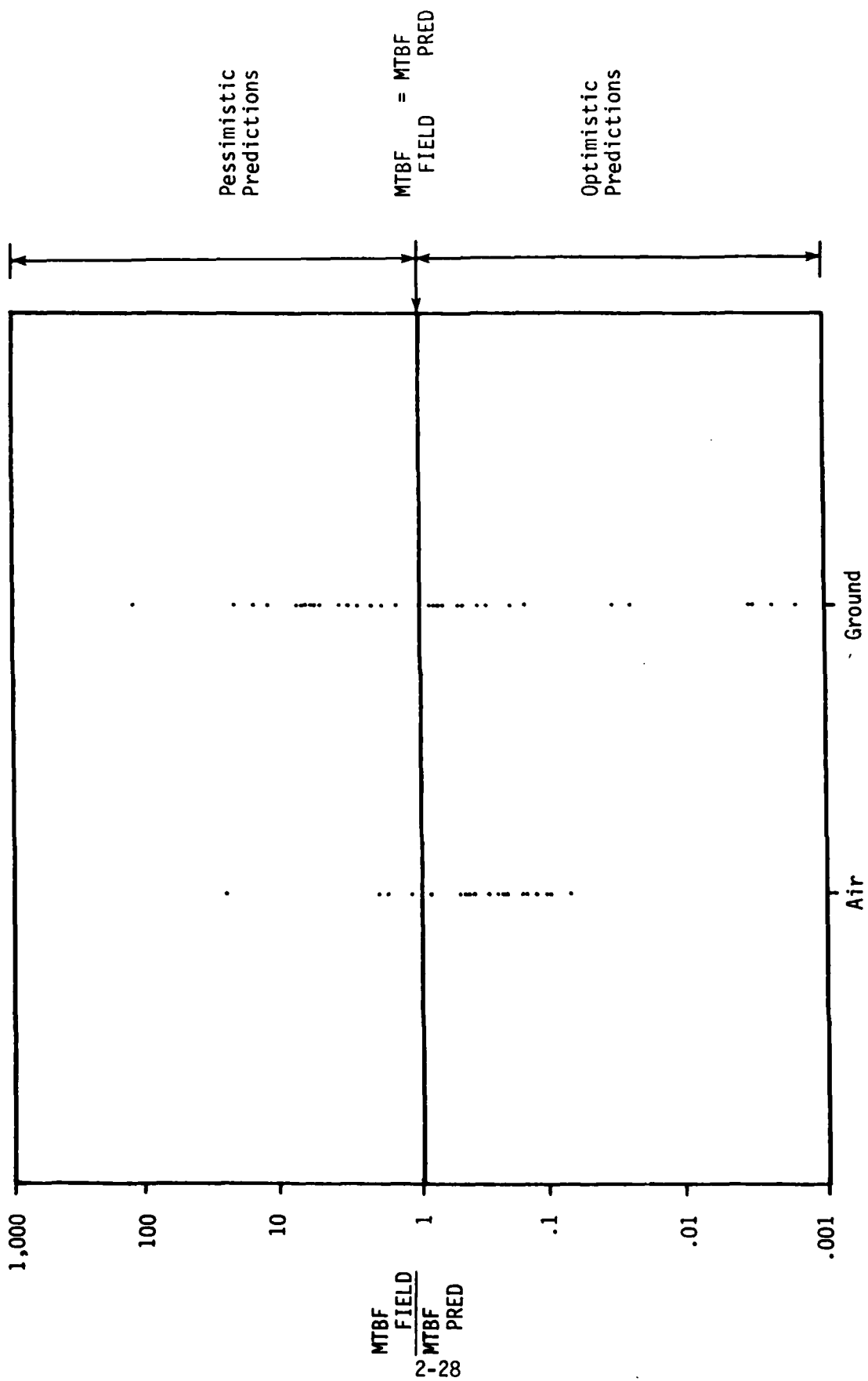


FIGURE 16: RADAR MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT



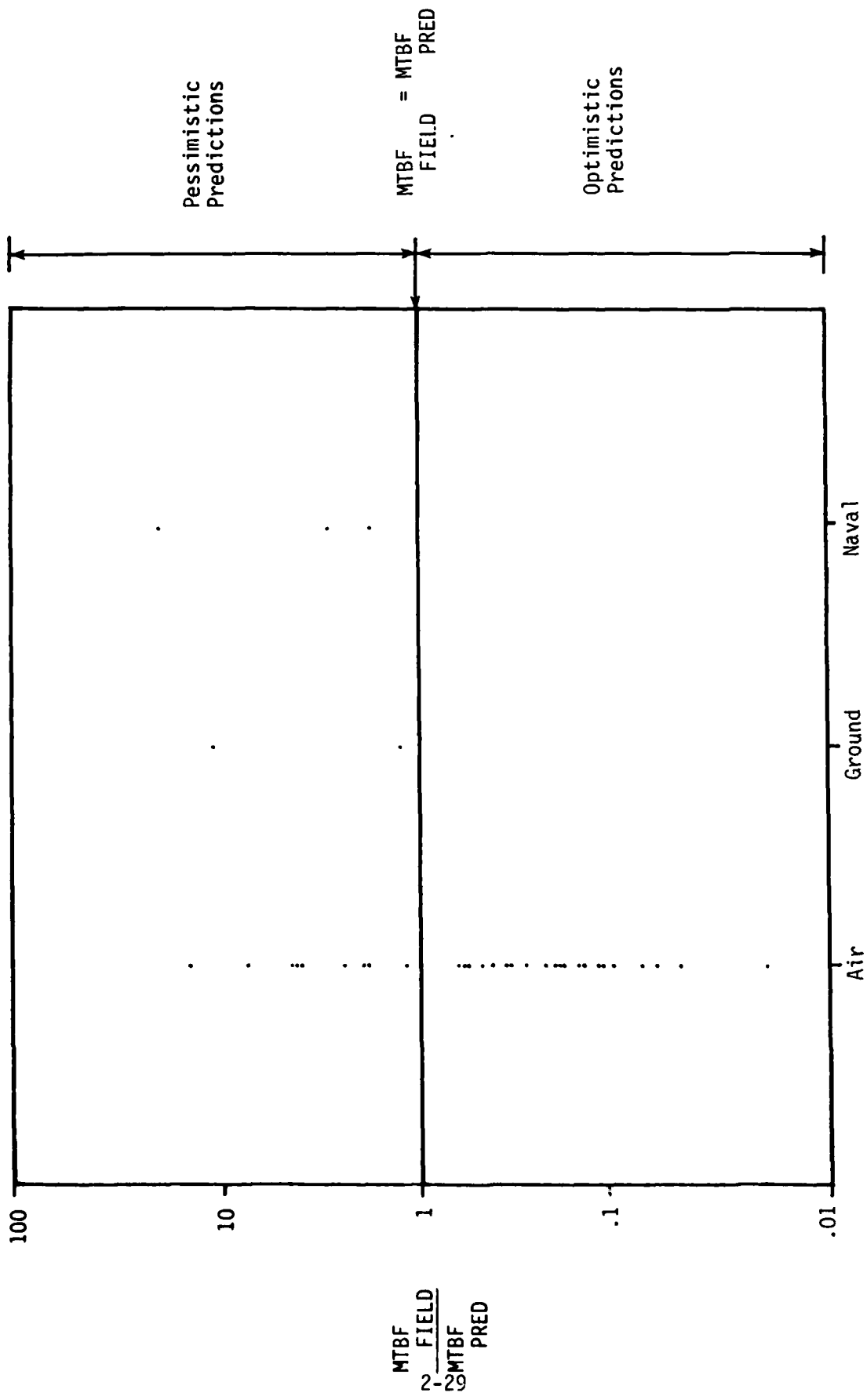


FIGURE 17: COMMUNICATIONS MTBF RATIO DISTRIBUTIONS VERSUS ENVIRONMENT

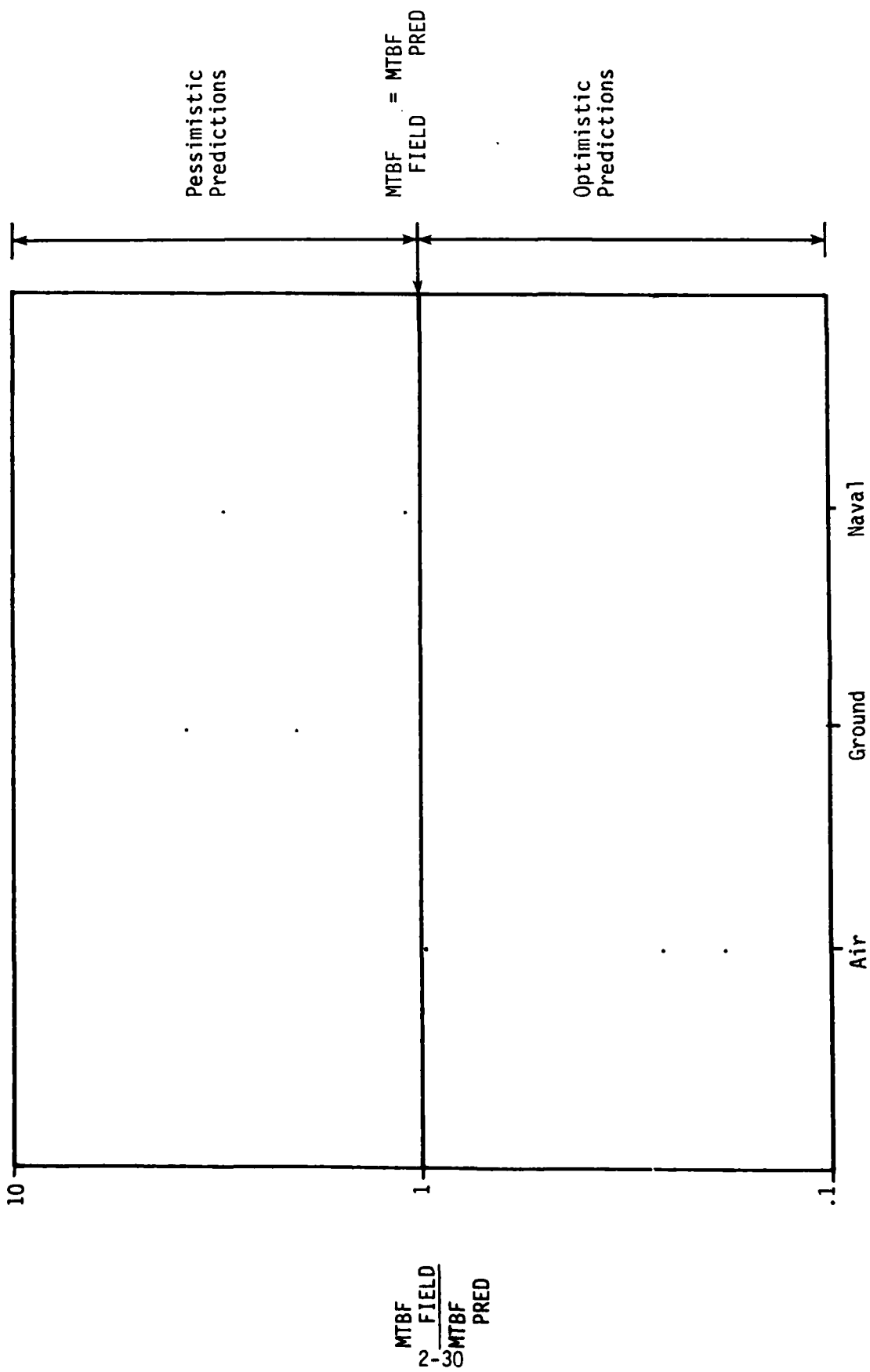


FIGURE 18: COMPUTER MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT

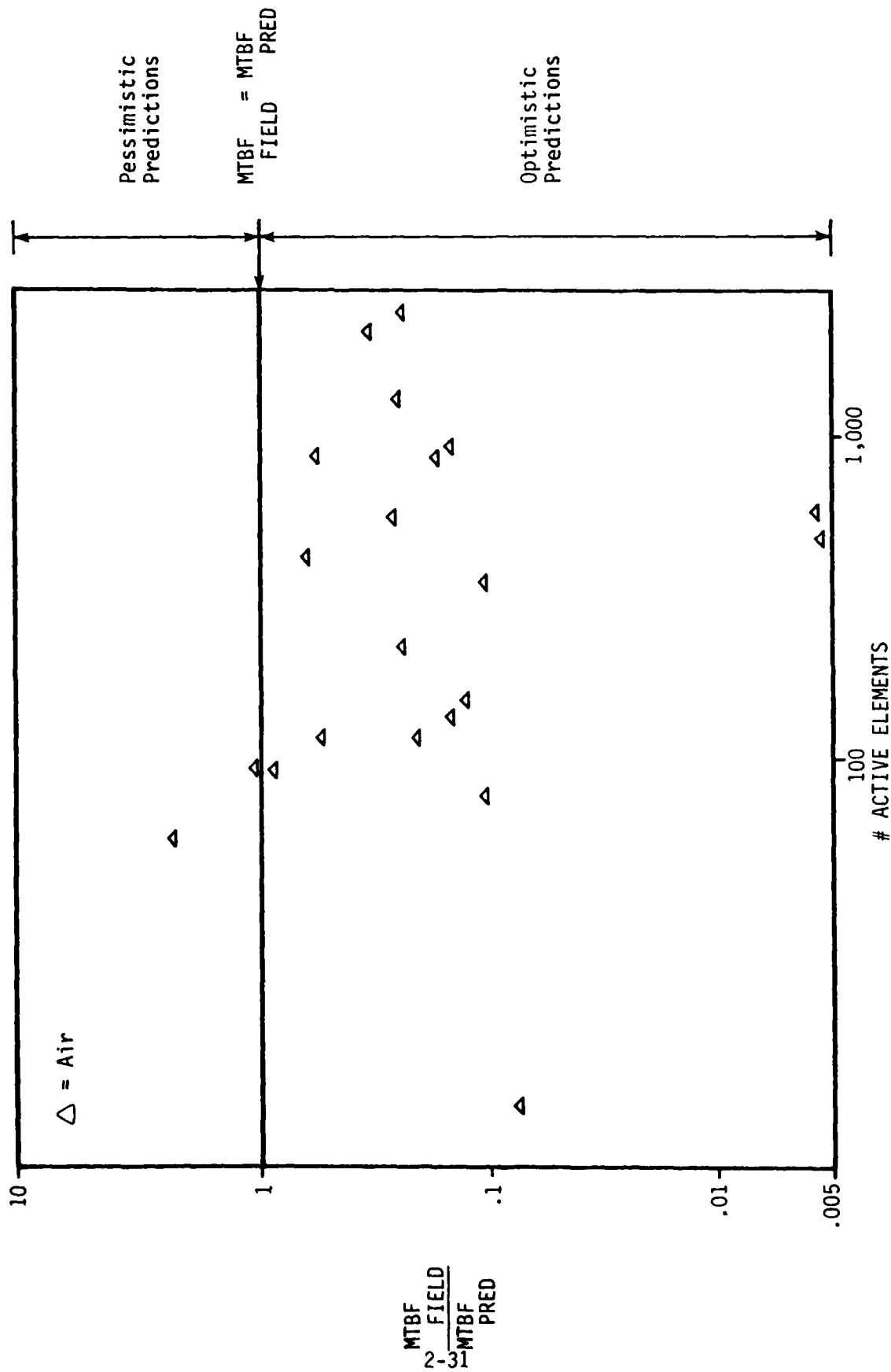


FIGURE 19: CONTROLS/DISPLAYS MTBF RATIOS VERSUS # ACTIVE ELEMENTS

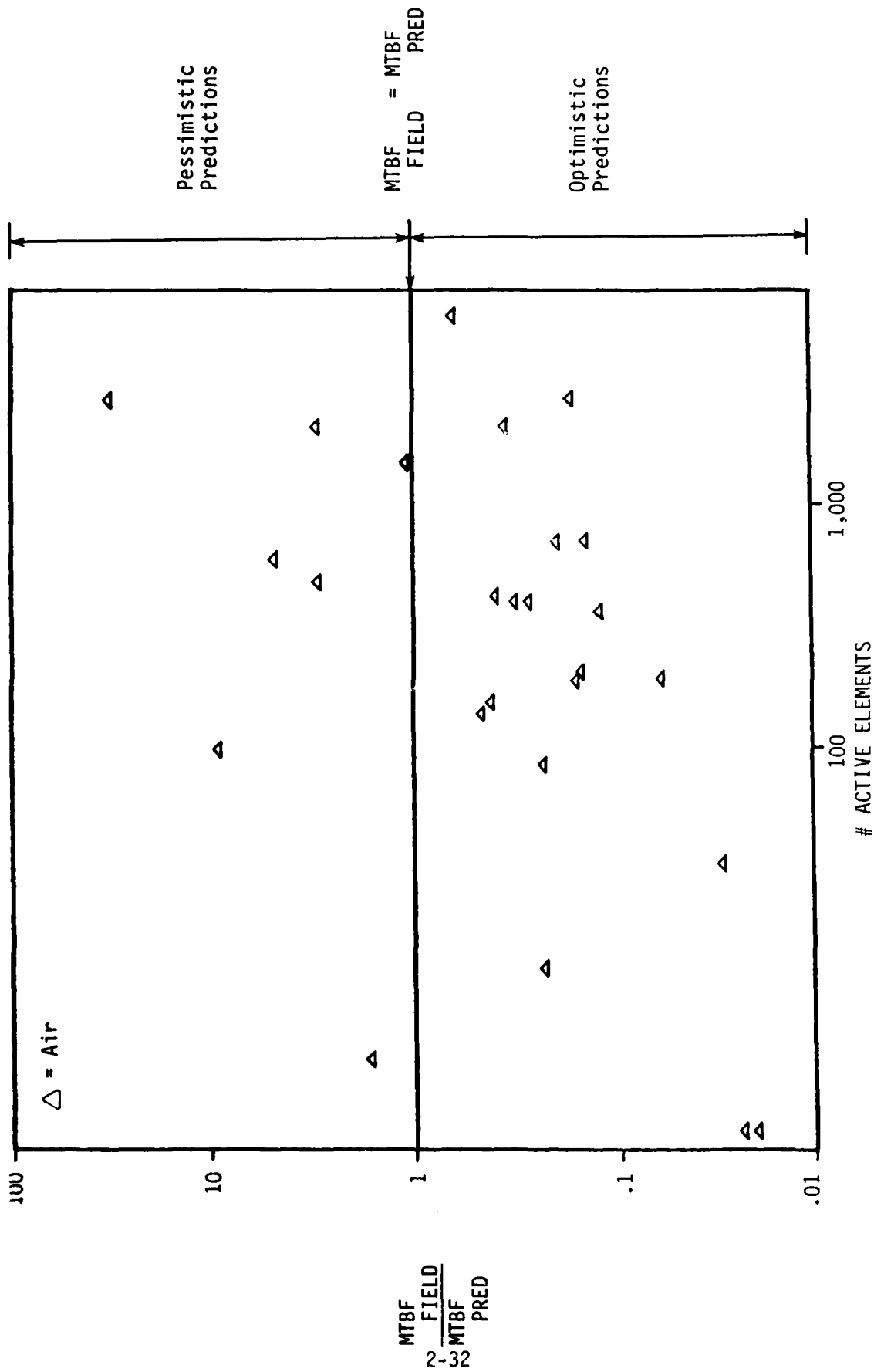


FIGURE 20: ELECTRONIC WARFARE MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS

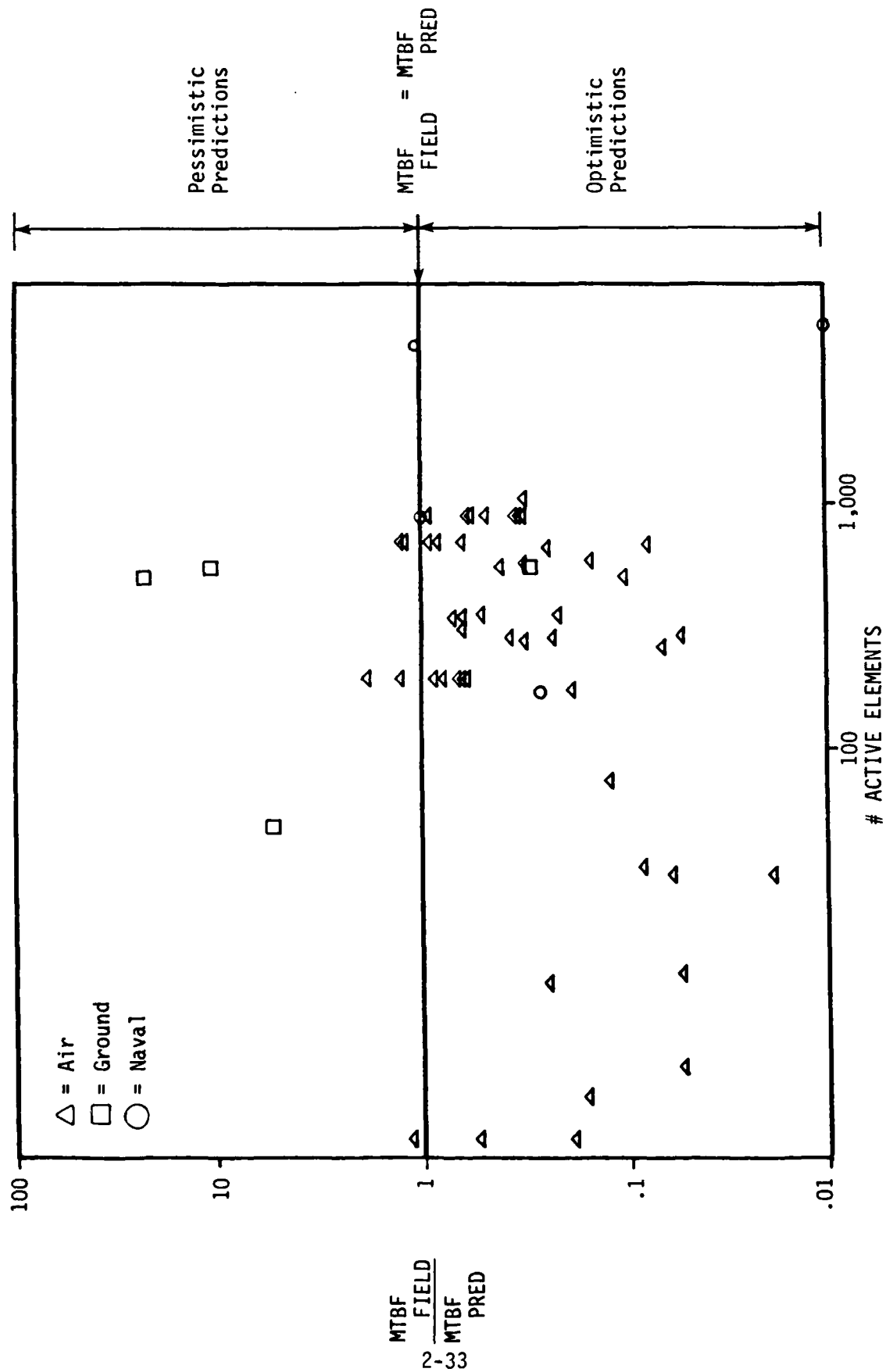


FIGURE 21: GUIDANCE/NAVIGATION MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS

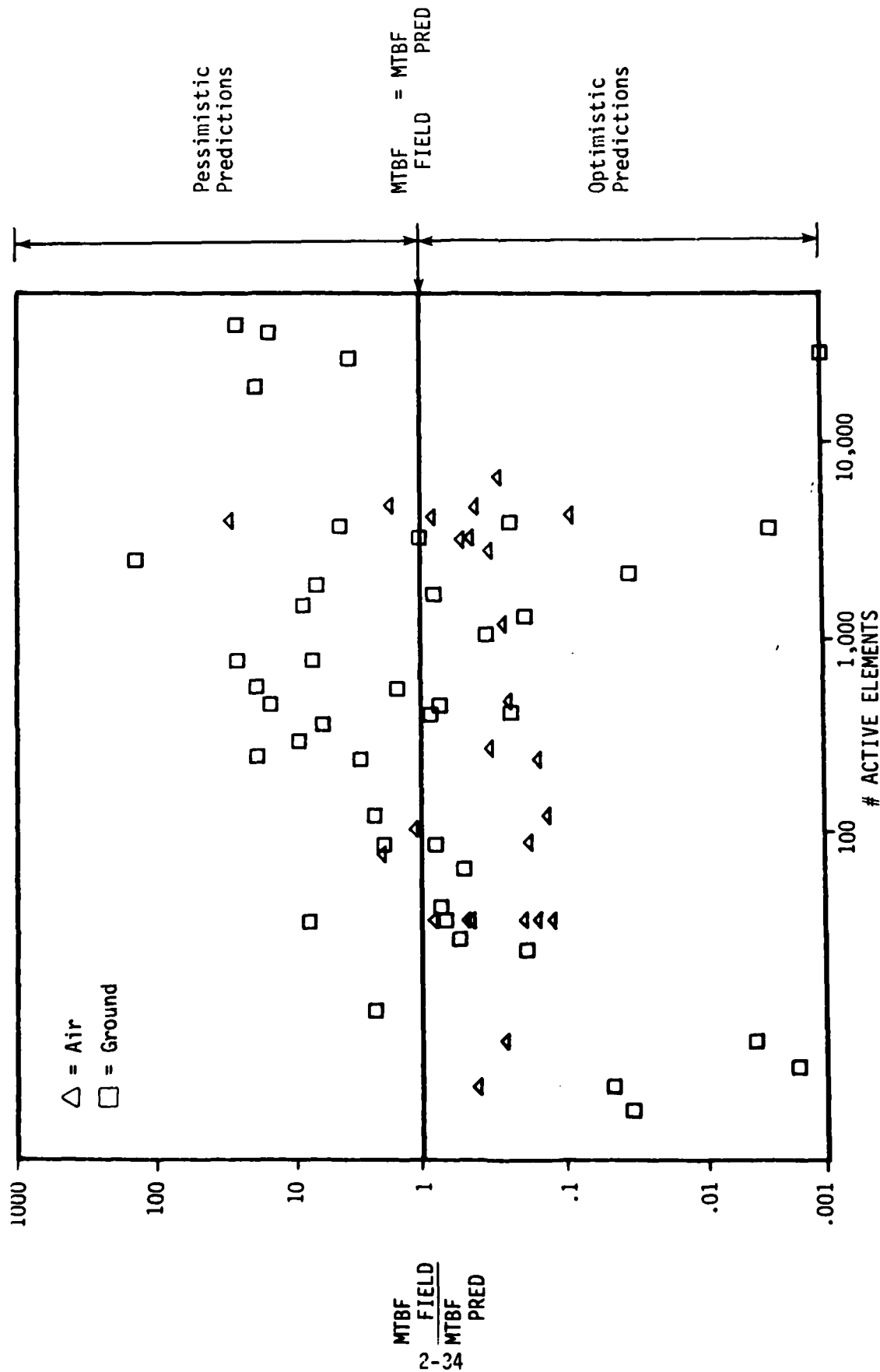


FIGURE 22: RADAR MTBF RATIOS VERSUS # ACTIVE ELEMENTS

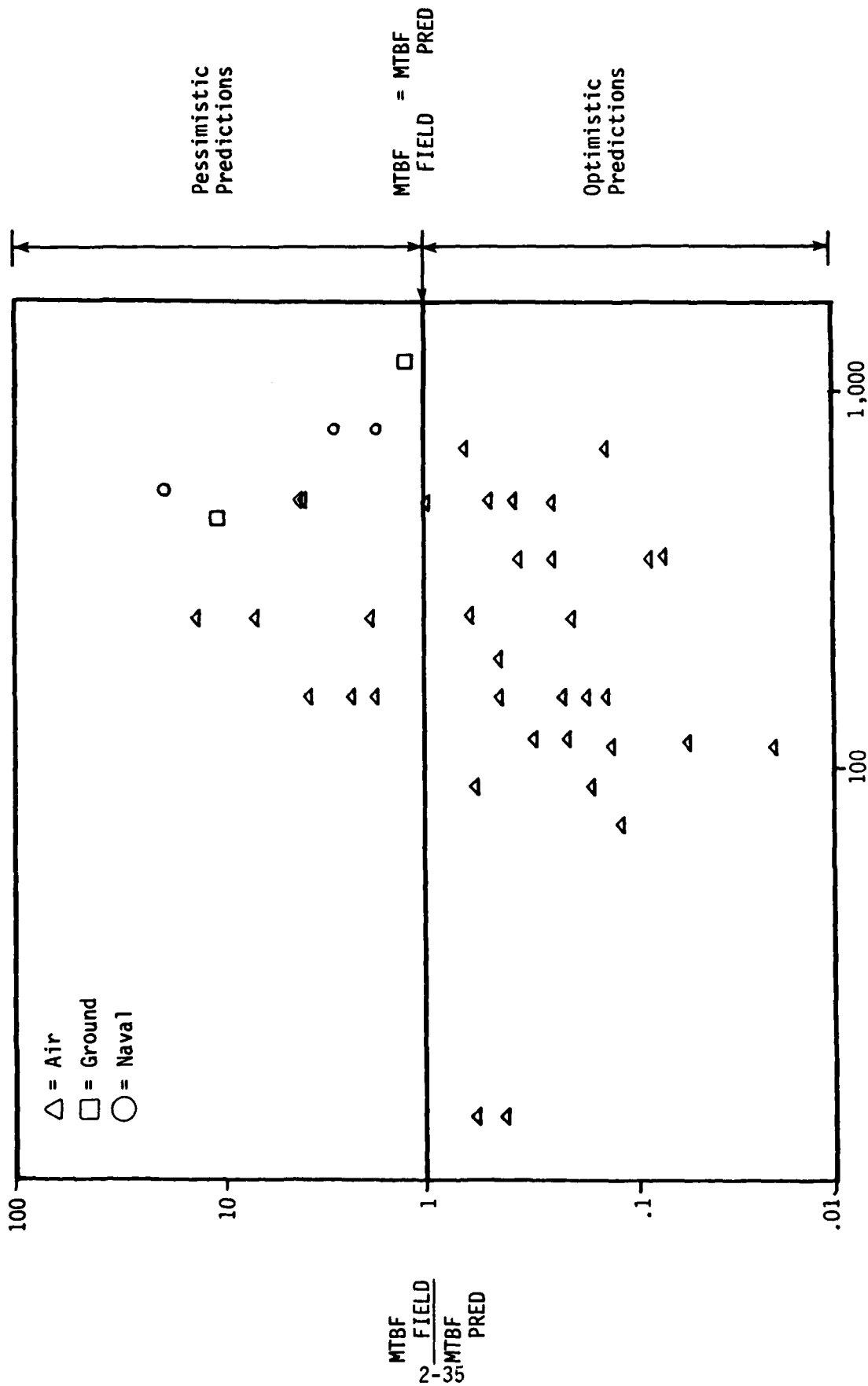


FIGURE 23: COMMUNICATIONS MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS

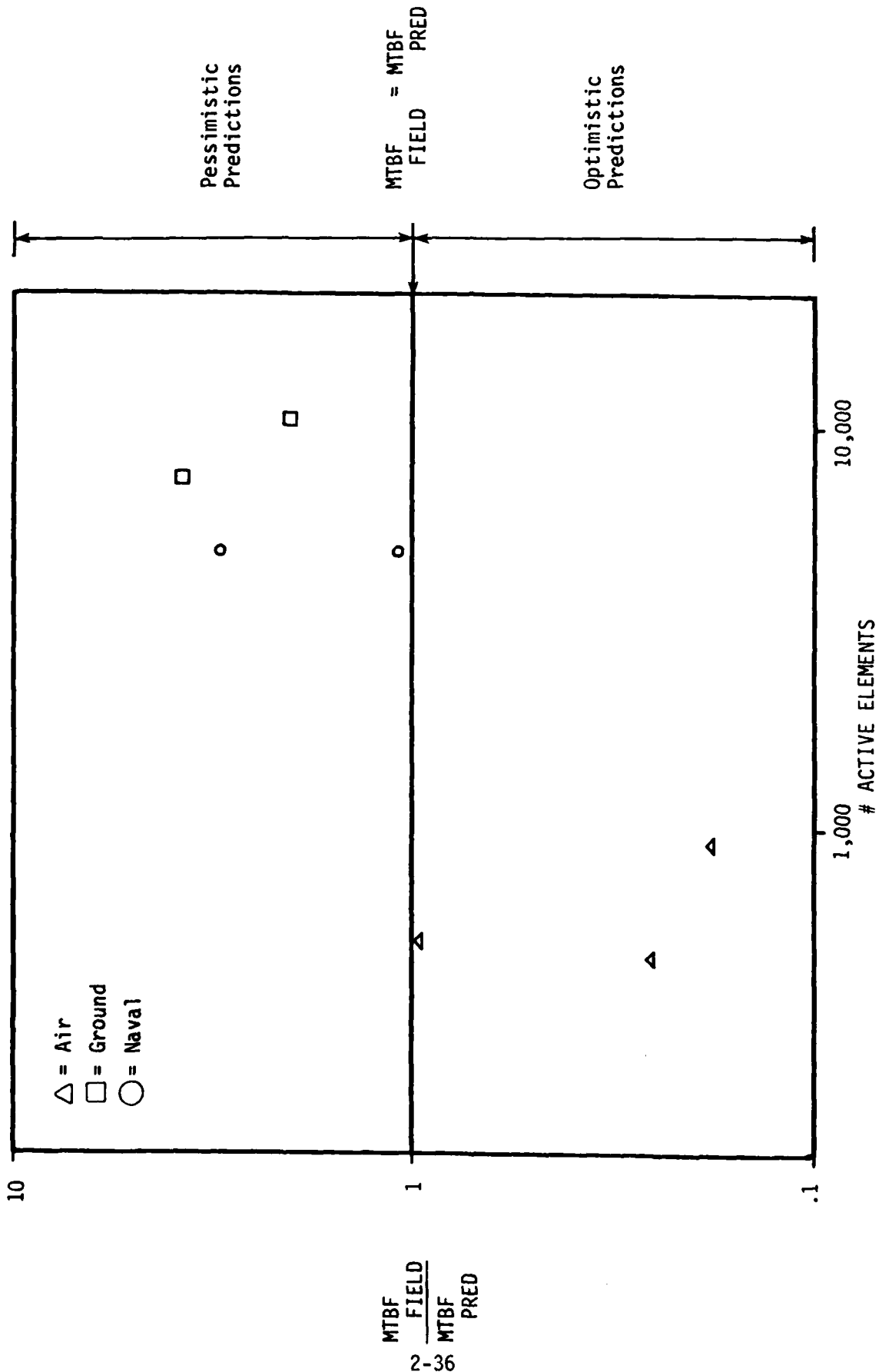


FIGURE 24: COMPUTER MTBF RATIOS VERSUS # ACTIVE ELEMENTS



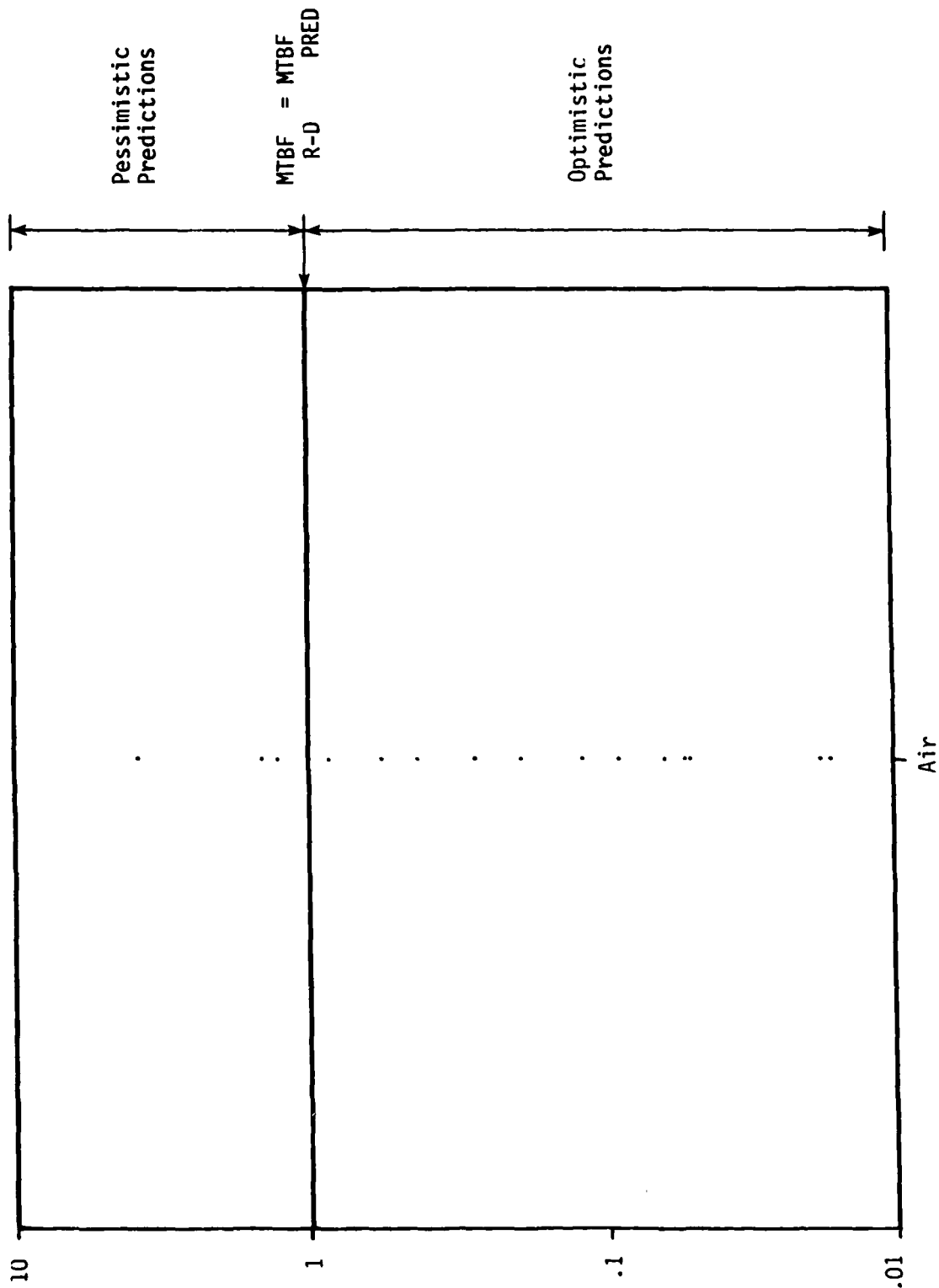


FIGURE 25: CONTROLS/DISPLAYS MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT

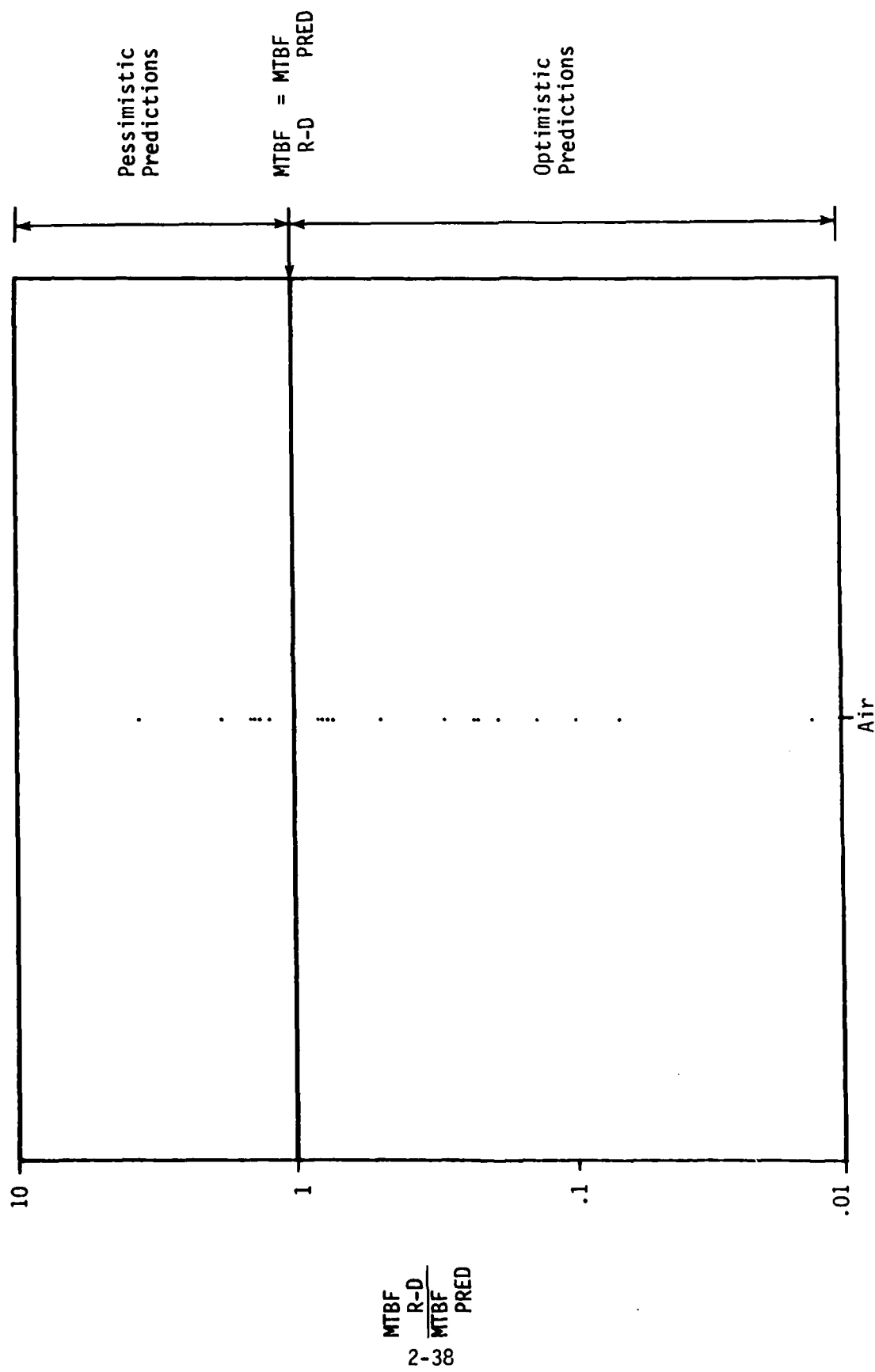


FIGURE 26: ELECTRONIC WARFARE MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT



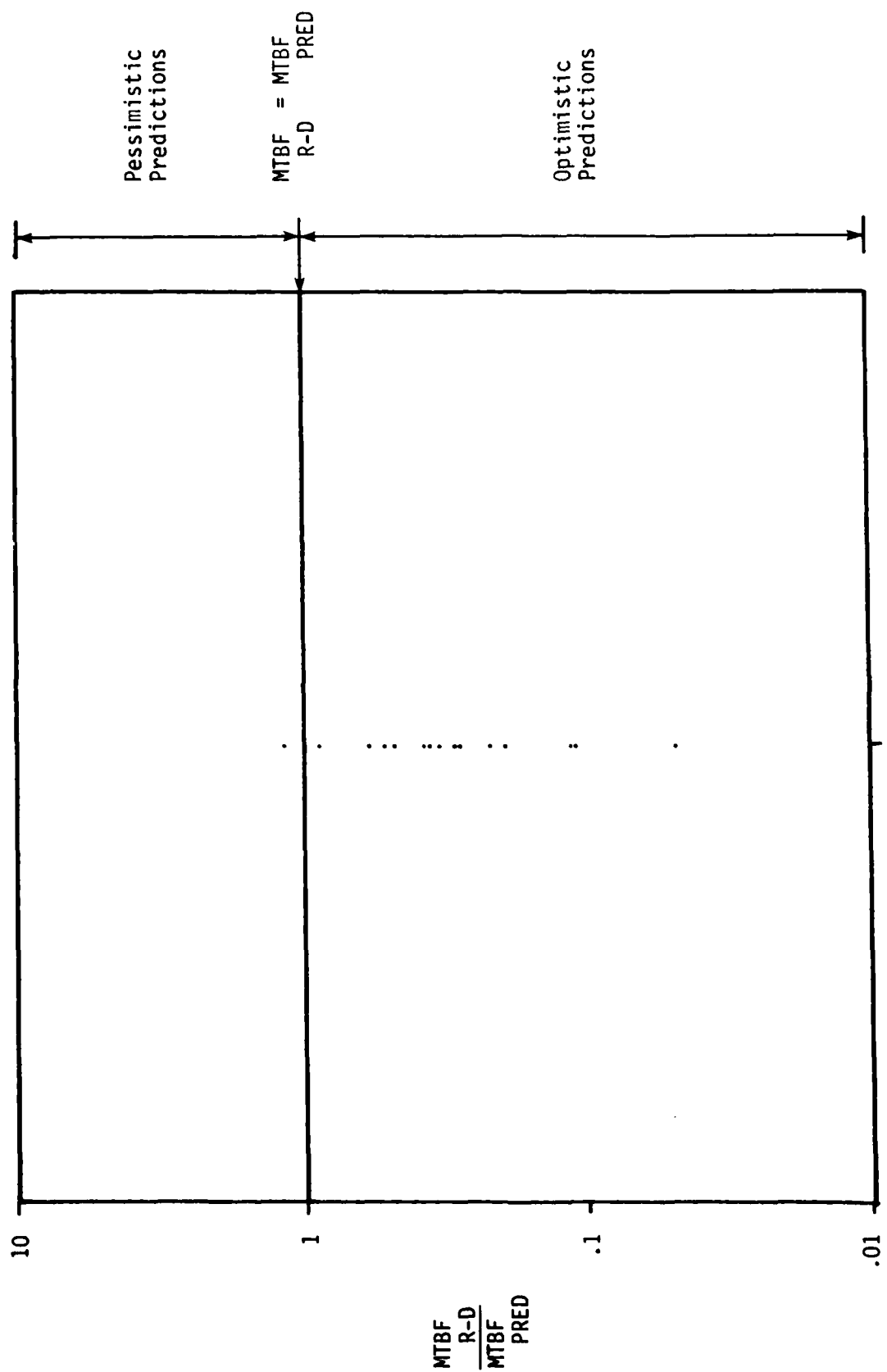


FIGURE 28: RADAR MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT

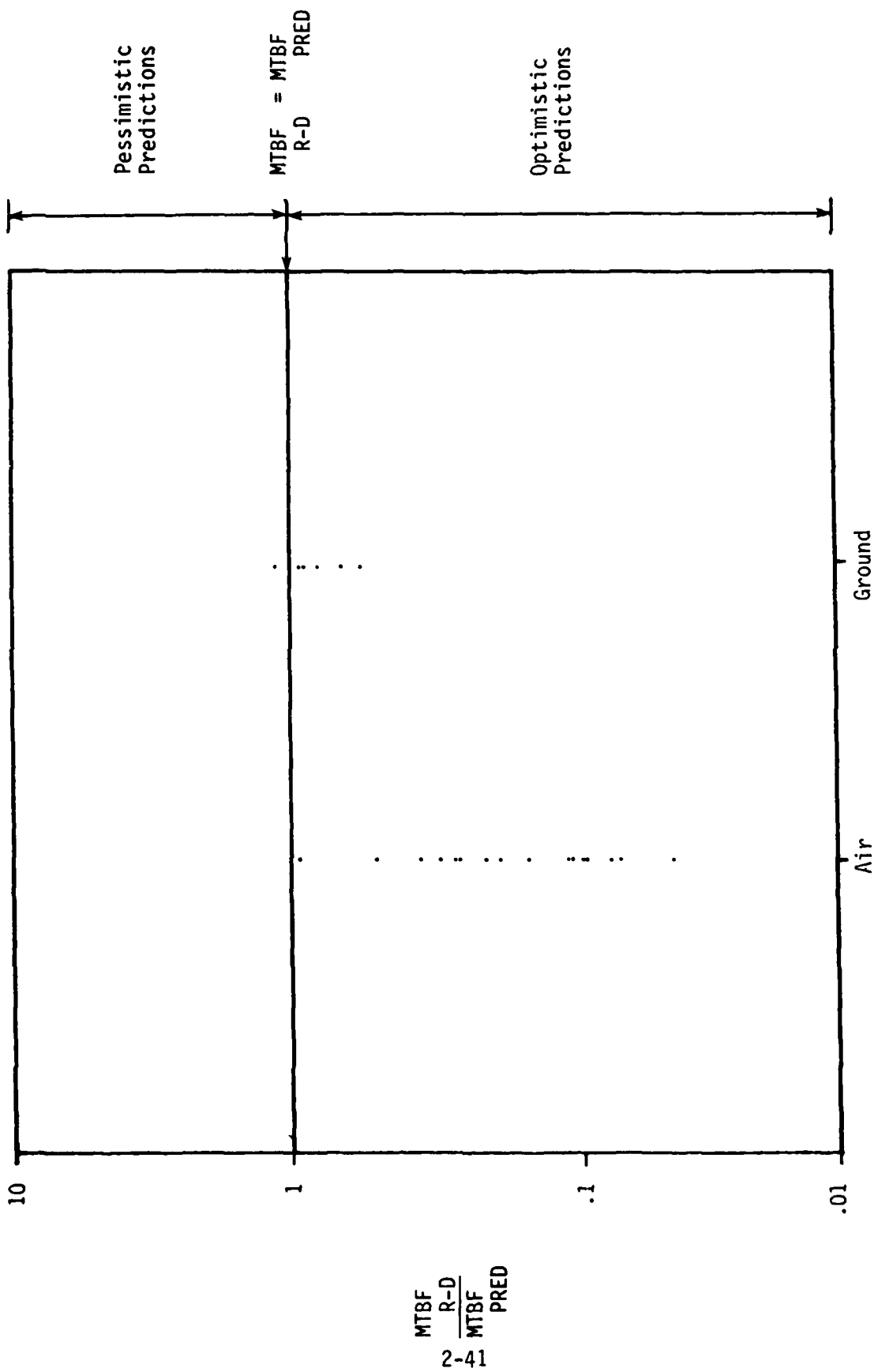


FIGURE 29: COMMUNICATIONS MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT

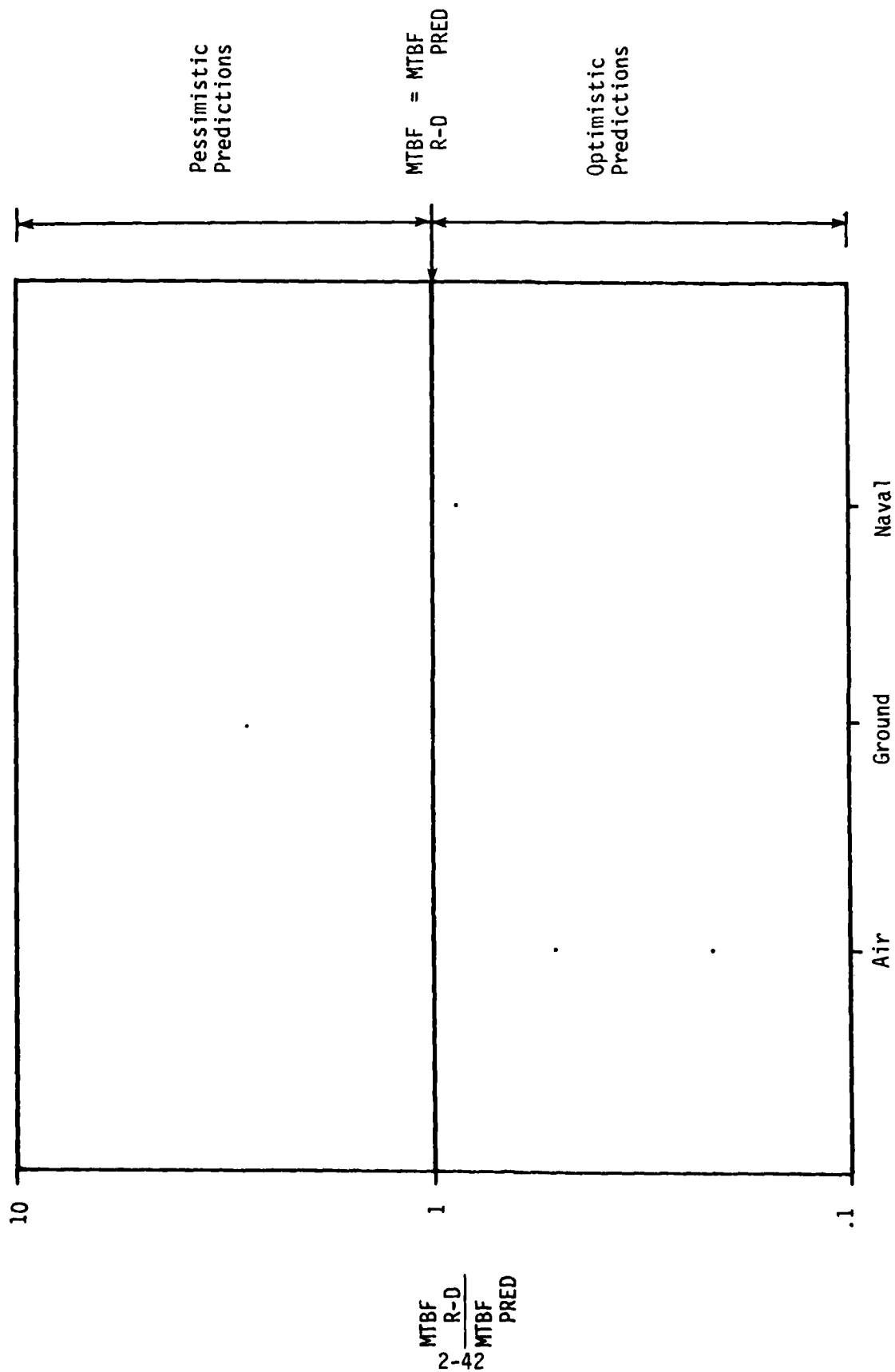


FIGURE 30: COMPUTER MTBF RATIO DISTRIBUTIONS  
VERSUS ENVIRONMENT

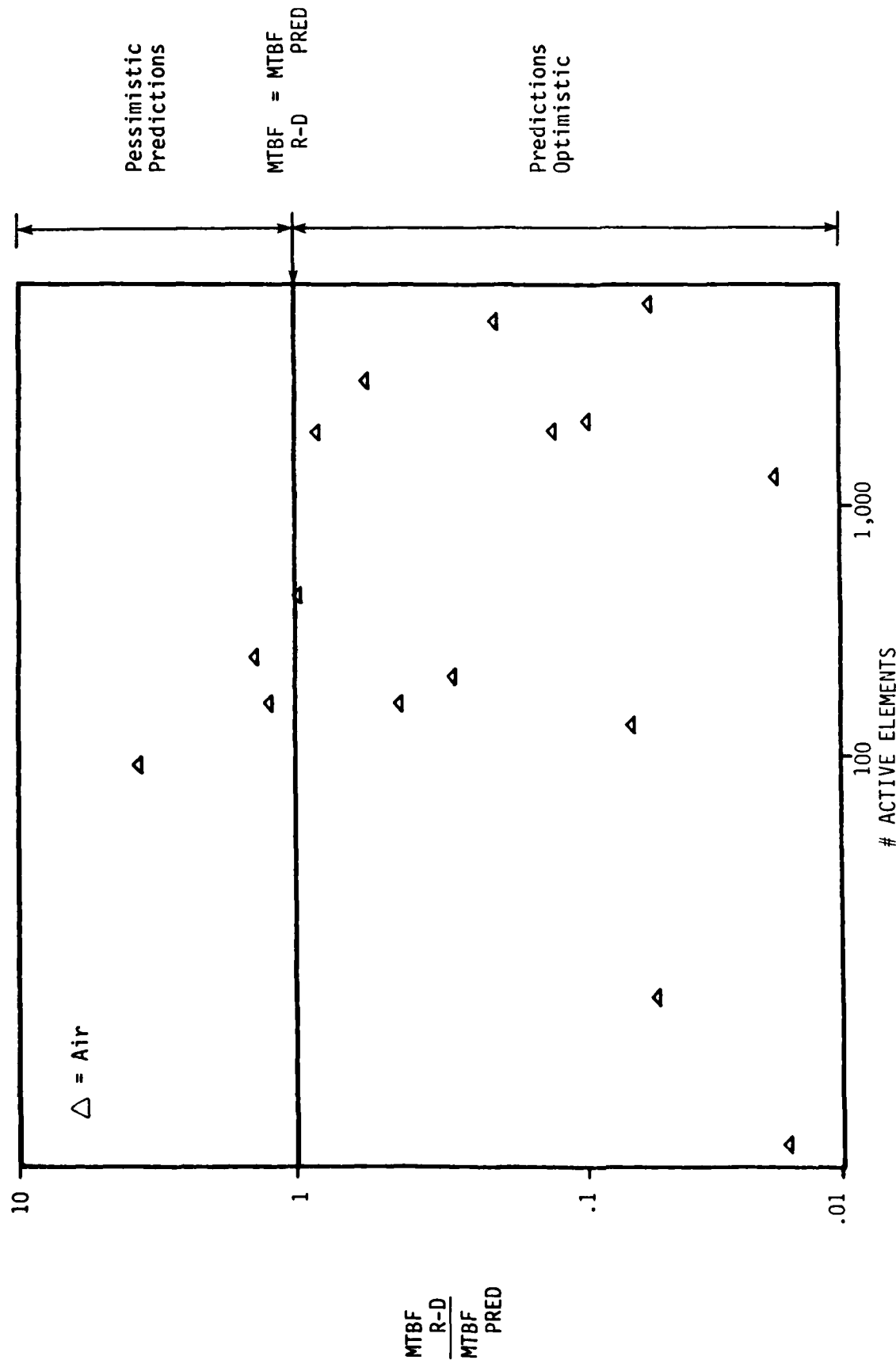
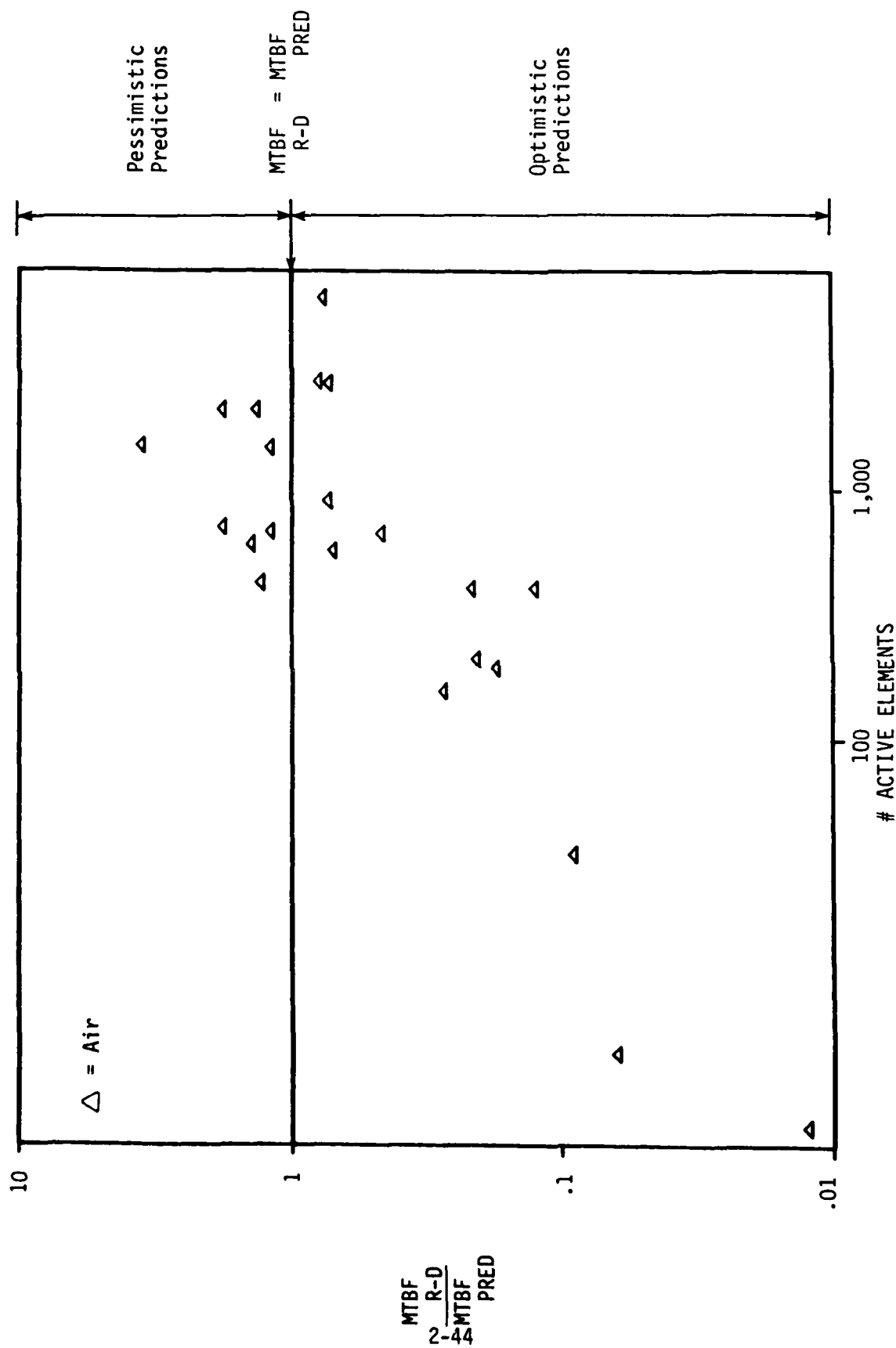


FIGURE 31: CONTROLS/DISPLAYS MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS



**FIGURE 32: ELECTRONIC WARFARE MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS**



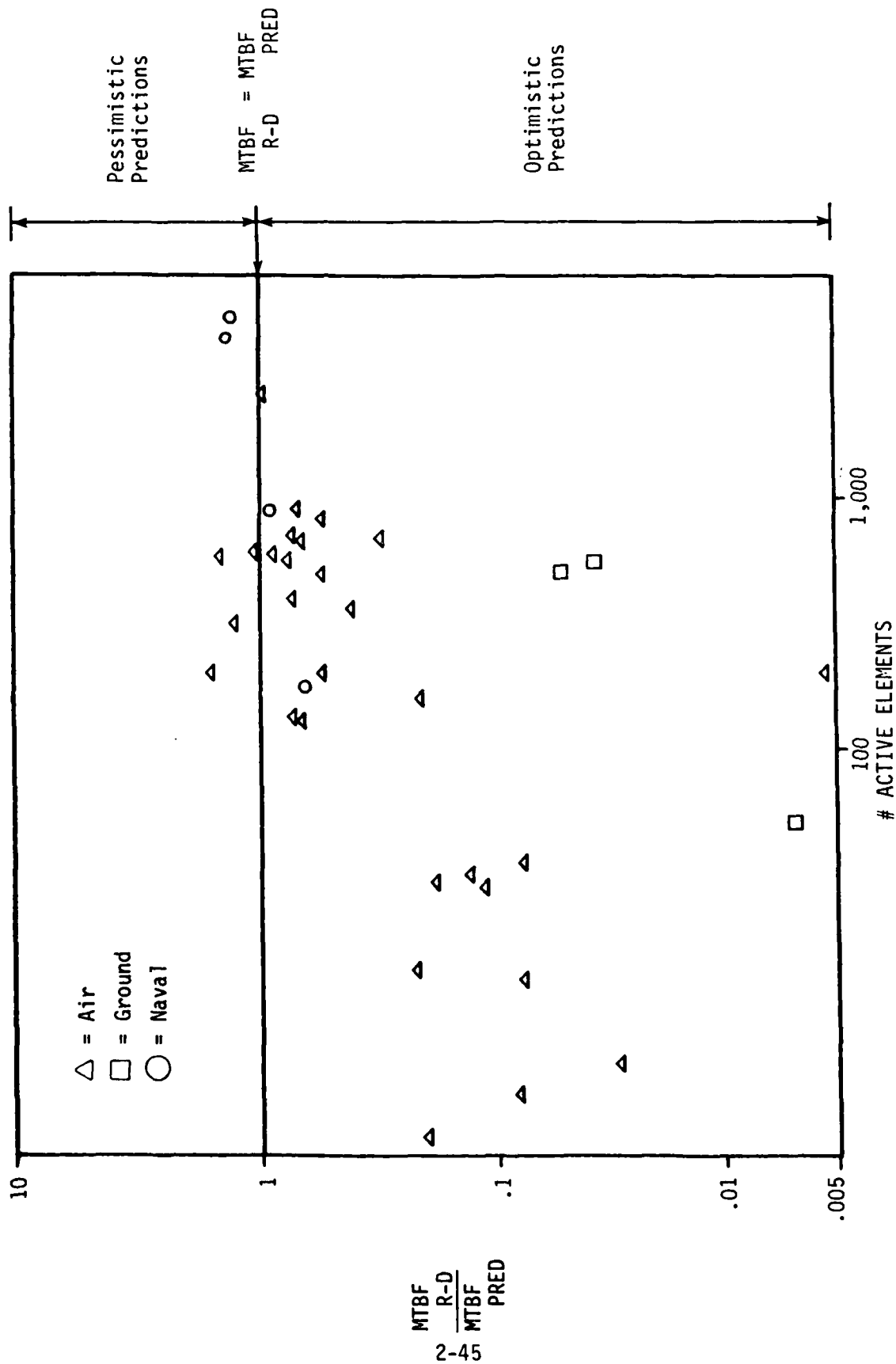


FIGURE 33: GUIDANCE/NAVIGATION MTBF RATIOS  
VERSUS # ACTIVE ELEMENTS



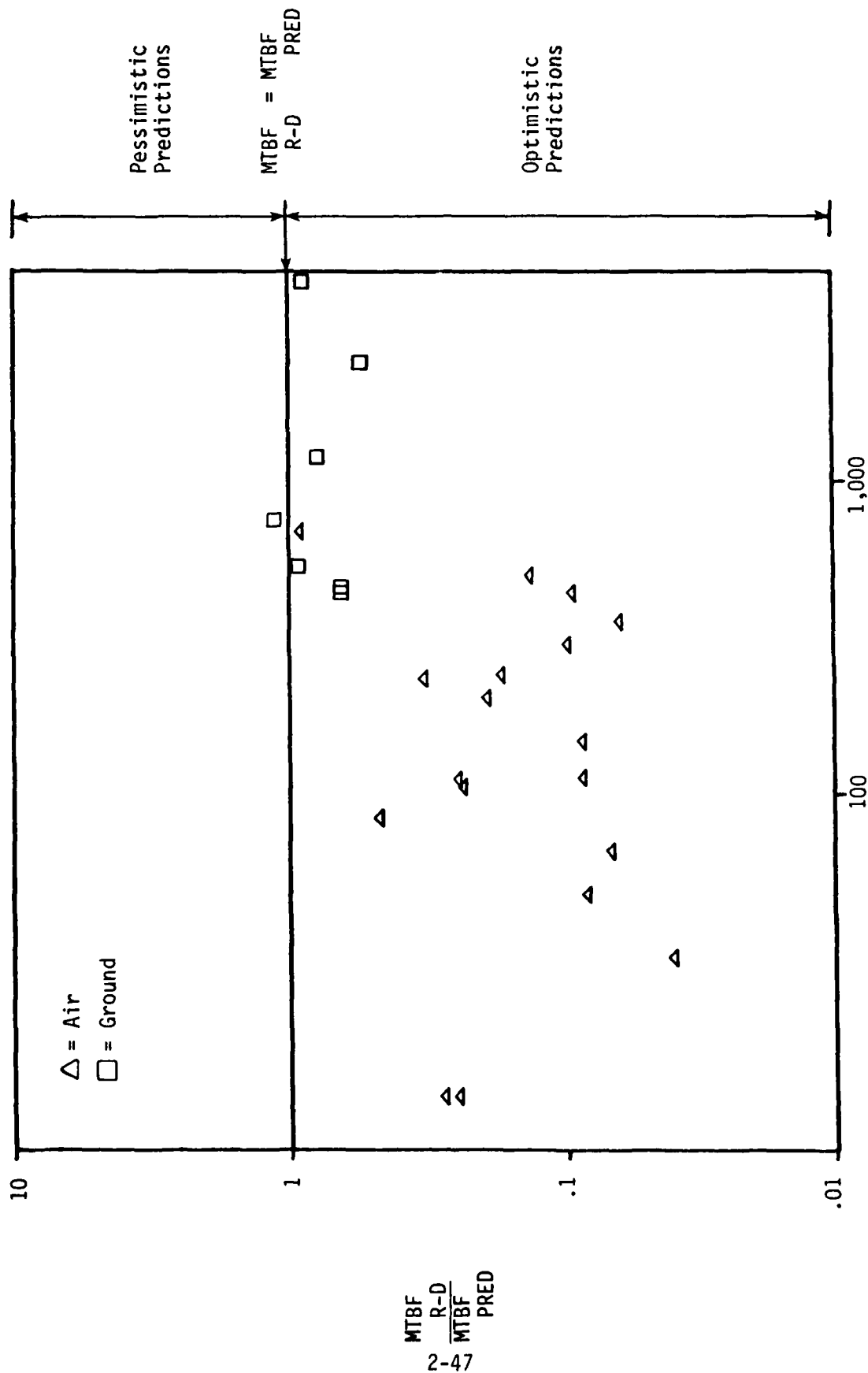


FIGURE 35: COMMUNICATIONS MTBF RATIOS VERSUS # ACTIVE ELEMENTS

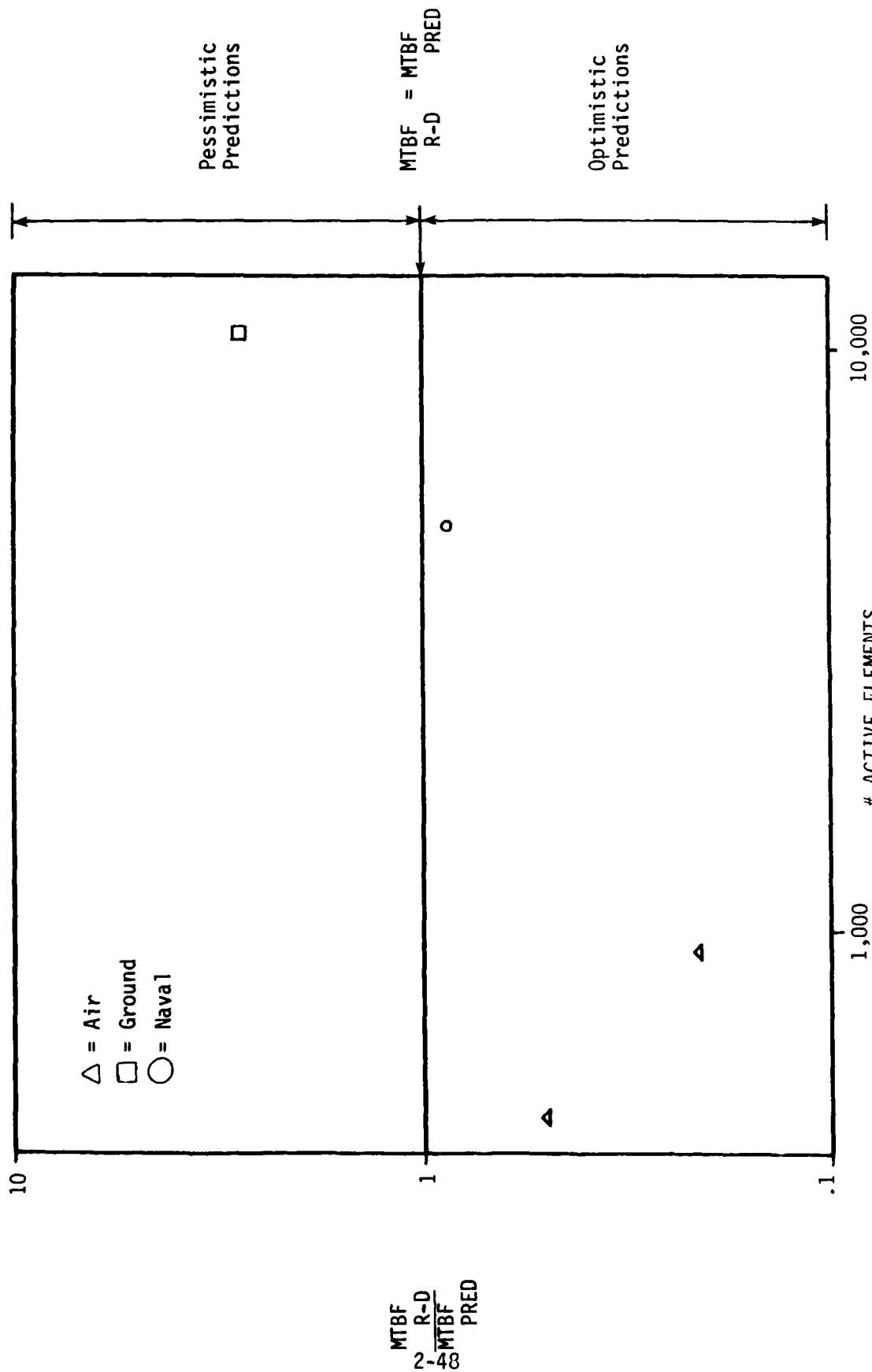


FIGURE 36: COMPUTER MTBF RATIOS VERSUS # ACTIVE ELEMENTS

## REGRESSION ANALYSIS

The observations presented here have been made on a subset of the original (entire) data set. The data chosen for review are a compilation of records which were separated from the rest of the data by virtue of being complete records; that is, there is an entry in every field. The original set of data contains records which are complete and those which are lacking pertinent information in various fields due to unavailability. It should be noted that even though the original data set contains many more records, the increase in volume does not reflect higher-quality data due to the corresponding increase in missing data items. The analysis revealed, as expected, that the larger data set more often resulted in inconsistencies and regression solutions which were inconclusive; consequently, those results were eliminated from the report.

### Objectives

The objectives of the regression analysis were to identify and quantify observed trends relating the reliability numerics to each other and to significant design and/or application stress variables. Specifically, the objectives of the regression analysis were to:

- (1) Relate the observed field MTBF to the predicted MTBF
- (2) Develop a relationship to predict field MTBF as a function of equipment-level design and application variables (and independent of predicted MTBF)
- (3) Relate the observed reliability demonstration MTBF to the predicted MTBF
- (4) Develop a relationship to predict reliability demonstration MTBF as a function of equipment-level design and application variables (and independent of predicted MTBF)
- (5) Relate the observed field MTBMA to the observed field MTBF

- (6) Develop a relationship to forecast the MIL-HDBK-217 predicted MTBF as a function of design and application variables to investigate the sensitivity of the MIL-HDBK-217 prediction and to develop a simple model useful for "quick" failure rate predictions

The tables and explanations in the following paragraphs present the results of the regression analyses and describe the implications of the regression results.

The equations formulated from the regression analysis are presented in Tables 2 through 6, as well as throughout the text. The tables present the dependent variable, the regression solution and the  $R^2$  value (as defined in Section 1). Several of the regression equations were found to account for relatively small percentages of the overall variability (evidenced by low  $R^2$  in some cases). This is believed to have been caused by the complexity of the relations between reliability and its related factors; and by noise in the data. These phenomena tend to preclude the existence of simple yet accurate equipment level models. It is also likely that some subtle reliability influences are not detectable in this data, which further adds to the unexplained variability ( $1-R^2$ ). As an overall caveat, these results should be regarded as tentative where the  $R^2$  values are lower than standard statistical practice.

#### Observed Field MTBF vs. Predicted MTBF

The analysis begins with the investigation of field failure data and the role that prediction models play in forecasting the reliability of a system under actual operating conditions. A basic linear equation was developed to examine the relationship between MTBF values derived from formal prediction methods and those from field observations. The initial equation was then modified using mathematical transformations (i.e., logarithms, reciprocals) to provide some comparison alternatives and to establish an expression with the most powerful interpretive value for this study. Table 2 is composed of the resultant equations which show the regression solutions when field MTBF is evaluated in relation to predicted MTBF.

TABLE 2:  
FIELD MTBF VERSUS PREDICTED MTBF

REGRESSION NUMBER	DEPENDENT VARIABLE	EQUATION	R <sup>2</sup>
1	MTBF <sub>FIELD</sub>	$2331 + 0.2391(\text{MTBF}_{\text{PRED}})$	.53
2	$\lambda_{\text{FIELD}}$	$796.7 + 2.023(\lambda_{\text{PRED}})$	.70
3	MTBF <sub>FIELD</sub>	$7.597(\text{MTBF}_{\text{PRED}})^{0.6196}$	.46

The equation given in the form of field failure rate ( $\lambda_{\text{FIELD}}$ ) (i.e., the reciprocal of field MTBF) versus predicted failure rate ( $\lambda_{\text{PRED}}$ ) provided a line representative of the best fit to the data with an  $R^2$  value of 70 percent. The actual equation indicates that the field failure rate is expected to be greater than the predicted failure rate by roughly a factor of two. To emphasize the significance of this finding, consider the use of this result as an adjustment factor to arrive at a more accurate field reliability prediction.

The expression is as follows:

$$\lambda_{\text{FIELD}} = 796.7 + 2.023(\lambda_{\text{PRED}})$$

Additional variables were then introduced into the simple two-dimensional model to determine whether meaningful improvements in model accuracy could be made. Initially, the analysis considered the effects of system function on failure rate. The system function for this study has been defined as equipment category-type. Five different categories were investigated, i.e., Communications, Radar, Electronic Warfare, Controls/Displays and Guidance/Navigation. The impact that the category (system function) had on field reliability was found to be minimal. The best model to describe this effect is given by the equation of field failure rate ( $\lambda_{\text{FIELD}}$ ) as a function of category and predicted failure rate ( $\lambda_{\text{PRED}}$ ). The incorporation of equipment function as the second independent variable revealed only a marginal increase of three percent in the correlation characteristic ( $R^2$  coefficient) of the model. The results indicate that equipment category-type is not a leading indicator or predictor of field performance.



Similar results were found throughout the analysis to indicate that equipment function has no appreciable effect on field reliability. This was not considered unusual, however, due to several factors. First, there was a large variability in the equipments reviewed. The wide range of equipment complexities prevented the determination of meaningful "functional factors" (i.e., multiplicative or additive adjustment factors to account for equipment function) because the distribution of complexities was not similar for the functional category groups. Second, the predicted MTBF accounts for many of the characteristics of specific functional applications which are thought to influence reliability. For example, the MIL-HDBK-217 factors for derating, part application, complexities and environment are mathematical tools used to assess much of the difference between functional groups. Therefore, after predicted MTBF has been introduced into the regression as a significant factor, much of the anticipated effect of functional category had already been accounted for.

#### Observed Field MTBF vs. Design/Application Variables

Table 3 presents regression solutions which were developed independent of the MIL-HDBK-217 reliability prediction to specifically examine the influence that other variables impose on field reliability. The results of this investigation were equipment-level reliability prediction models. As expected, the accuracy of these models was much less than those models which included the predicted MTBF as an input variable (Table 2).

TABLE 3:  
FIELD MTBF RELATIONSHIPS (INDEPENDENT OF PREDICTED MTBF)

REGRESSION NUMBER	DEPENDENT VARIABLE	EQUATION	R <sup>2</sup>
1	$\lambda$ FIELD	$-220.9 + 5.820(\# \text{ Active Elements})$	.23
2	MTBF FIELD	$3432(\# \text{ Active Elements}) - 0.1830$	.12
3	MTBF FIELD	$25397 \left\{ \begin{array}{l} 1 \text{ Ground} \\ 0.0451 \text{ Air} \end{array} \right\}$	.21
4	MTBF FIELD	$103207 \left\{ \begin{array}{l} 1 \text{ Ground} \\ 0.0305 \text{ Air} \end{array} \right\} (\# \text{ Active Elements}) - 0.2197$	.39
5	$\lambda$ FIELD	$1833 + \left\{ \begin{array}{l} 0 \text{ Communications} \\ 17491 \text{ Radar} \\ 727.9 \text{ Electronic Warfare} \\ 374.9 \text{ Controls/Displays} \\ -348.7 \text{ Guidance/Navigation} \end{array} \right\}$	.17

The reliability of a system or equipment is dependent upon the number of active elements contained within that system/equipment. Since each component has an inherent reliability unique to itself, it should follow that the greater the number of operational components the greater the impact on reliability. The equations formulated to determine the correlation characteristics attributable to the effects of active elements were evaluated with and without the use of natural log transformations. Equations 1 and 2 in Table 3 present these results. The linear failure rate model is, however, limited in its interpretations to large values of the active element count in order for the results to be meaningful. At low values of active elements the equation assumes negative values, which is, of course, incorrect. This apparent inconsistency is not unusual for observed empirical relationships. Empirical relationships are only valid for the range of values found in the data, and it is invalid to extrapolate beyond that range. An advantage of using log transformations is that the dependent variable will never assume a negative value.

The best fit regression equation relating the number of active elements to field reliability is of the following form:

$$\lambda_{\text{FIELD}} = -220.9 + 5.820(\# \text{ Active Elements})$$

Application environment was the next variable introduced into the analysis. The environment is a factor which is often investigated to determine its degree of impact on reliability. As expected, the results obtained from this study indicate that environment affects field reliability. Interpretation of the regression results establishes field MTBFs for ground equipment as being 22 times higher than airborne MTBFs. Equation 3 in Table 3 presents the regression solution with environment acting alone as the independent variable. Equation 4 presents the results of a multivariate regression with both environment and active element count as significant variables affecting field MTBF. Although the collected System RAM Data Base includes other environments (e.g., naval), there was an insufficient quantity of complete data records to yield meaningful results.

This effort to examine the alternative relationships which exist among the various elements associated with field reliability indicates that, clearly, the greatest correlation to the data can be explained by the presence of the predicted MTBF variable. The number of active elements was identified as the next most significant factor which influences field reliability. A combination of these two independent variables (active elements and predicted failure rate) were evaluated simultaneously to determine if the previous independent effects might be affected by the merger of the two. The evaluations performed on each of the variables independent of one another established that the weight of the predicted data was greater than the number of active components as a determinant of the failure rate. The combination of both of these factors in one equation does not appreciably affect the degree of correlation attributable to that of just the predicted values. This is the expected result and seems to justify the practice of formally predicting the reliability of equipment using a part stress analysis.

#### Demonstrated MTBF vs. Predicted MTBF

The next stage of the data analysis was to study reliability demonstration test data and investigate the correlation results when compared with predicted data. The analysis provided the most significant correlation ( $R^2$  of .90) with a failure rate equation. These findings are similar to those reported for the observed field reliability, where the optimum expression was also found to be in the form of a linear failure rate model. Reliability demonstration test data are derived from more tightly controlled operational and environmental conditions than are field data; consequently, the variability in this data set is considerably reduced as compared to the field data set. Similarities indicated in the results, however, establish a confidence in performing formal predictions and demonstration tests to effectively assess the corresponding field reliability. Table 4 contains the expressions derived illustrating the correlation between reliability demonstration MTBF and predicted MTBF.

TABLE 4:  
RELIABILITY DEMONSTRATION MTBF  
VERSUS PREDICTED MTBF

REGRESSION NUMBER	DEPENDENT VARIABLE	EQUATION	R <sup>2</sup>
1	MTBFR-D	$2066.3 + 0.0015(\text{MTBF}_{\text{PRED}})$	<.01
2	MTBFR-D	$34.65(\text{MTBF}_{\text{PRED}})^{0.4194}$	.33
3	$\lambda_{\text{R-D}}$	$-1211.52 + 4.186(\lambda_{\text{PRED}})$	.90

### Demonstrated MTBF vs. Design/Application Variables

The investigation of demonstrated MTBF versus design and application variables was conducted in two phases. First, additional variables were introduced into the simple linear model (of demonstrated MTBF versus predicted MTBF) to determine whether meaningful improvements could be made in prediction accuracy. Second, demonstrated MTBF was modeled as a function of design and application variables independent of predicted MTBF.

Table 5 provides the expressions developed to evaluate the impact of additional variables on demonstrated reliabilities. Using a stepwise regression process additional independent variables were introduced into the two-dimensional model (i.e., Reliability Demonstration MTBF vs. Predicted MTBF) to determine their impact on the demonstration test results. Small deviations in the  $R^2$  coefficient were experienced with the introduction of the independent variables, such as active elements or equipment function; however, the predicted MTBF consistently yielded the greatest influence on the degree of correlation in any of the models.

The strong predicted and demonstrated reliability relationship is further emphasized when the correlation characteristics between reliability demonstration data and active elements, equipment category and environments are examined independent of the predicted data. Conclusions drawn from the equations given in Table 6 indicate that a relatively smaller impact on demonstrated equipment reliability is accounted for by any one or all of these independent variables.

### Field MTBMA vs. Field MTBF

The scope of the analysis deviates from the previous discussion by examining the trends associated with the two types of field data contained in the report. Analytical investigations were performed on

TABLE 5:  
ADDITIONAL VARIABLE IMPACT ON  
RELIABILITY DEMONSTRATION MTBF

REGRESSION NUMBER	DEPENDENT VARIABLE	EQUATION	R <sup>2</sup>
1	MTBFR-D	$2436 + 0.0078(\text{MTBF}_{\text{PRED}}) - 0.4568(\# \text{ Active Elements})$	.07
2	MTBFR-D	$171.06(\text{MTBF}_{\text{PRED}})^{0.3217}(\# \text{ Active Elements})^{-0.1529}$	.36
3	$\lambda \text{ R-D}$	$89.72 + 4.38(\lambda \text{ PRED})^{-1.98}(\# \text{ Active Elements})$	.91
4	MTBFR-D	$12.78(\text{MTBF}_{\text{PRED}})^{0.5478}$ $\left\{ \begin{array}{l} 1.136 \text{ Radar} \\ 0.9935 \text{ Electronic Warfare} \\ 0.5073 \text{ Controls/Displays} \\ 1.584 \text{ Guidance/Navigation} \end{array} \right\}$	.57

TABLE 6:  
RELIABILITY DEMONSTRATION MTBF RELATIONSHIPS  
(INDEPENDENT OF PREDICTED MTBF)

REGRESSION NUMBER	DEPENDENT VARIABLE	EQUATION	R <sup>2</sup>
1	MTBFR-D	$2330(\# \text{ Active Elements}) - 0.1607$	.16
2	$\lambda$ R-D	$  \begin{aligned}  & -22.69 + \left\{ \begin{array}{l} 0 \text{ Communications} \\ 16567 \text{ Radar} \\ -4233 \text{ Electronic Warfare} \\ 1120 \text{ Controls/Displays} \\ 1877 \text{ Guidance/Navigation} \end{array} \right\} + 6.200(\# \text{ *AE})  \end{aligned}  $	.17
3	MTBFR-D	$  1675 \left\{ \begin{array}{l} 1 \text{ Ground} \\ 1.403 \text{ Air} \end{array} \right\} (\# \text{ Active Elements}) - 0.1572  $	.17

\*Active Elements



field maintenance data (MTBMA<sub>FIELD</sub>) and observed field failure data (MTBF<sub>FIELD</sub>), both terms are fully defined in Section 1. Since these two sources of field failure information often share a common data collection basis, a high degree of correlation was expected to exist. The optimum expression is presented in a log transformation as:

$$\text{MTBMA}_{\text{FIELD}} = 0.5336(\text{MTBF}_{\text{FIELD}})^{0.9754}$$

The MTBF<sub>FIELD</sub> exponent of 0.9754 (almost one) represents a near proportional relationship between MTBMA<sub>FIELD</sub> and MTBF<sub>FIELD</sub> data. The computed correlation factor ( $R^2$  value) verifies the significance of this relationship with a value of 94 percent. Literal interpretation of the regression results is that there is a two-to-one relationship between the number of maintenance actions and the number of failures.

#### Predicted MTBF vs. Design/Application Variables

The next phase of the data analysis was to develop a model relating the predicted MTBF to the number of active elements and the application environment. The objectives of this data analysis task were two-fold. First, the relative sensitivity of the predicted MTBF could be evaluated in regard to these two variables. The second objective was to determine a very simple reliability prediction model for quick analyses to determine "ballpark" reliability predictions.

The log-transformed equation for the dependent MTBF<sub>PRED</sub> shows an intermediate degree of correlation to the number of active elements. The  $R^2$  value associated with the following expression is 43 percent.

$$\text{MTBF}_{\text{PRED}} = 20467 (\# \text{ Active Elements})^{-0.3574}$$

This result is as expected, however, due to the fact that the number of active elements designed into a system is taken into account in the prediction models as a factor which does impact reliability. A high

percentage of correlation associated with the predicted MTBF and active element count would be very intriguing. If it is determined that the predicted MTBF can be accurately estimated using only a count of the number of active components, then preliminary MTBF predictions can be determined quickly using this relationship.

The introduction of operating environment into the equation yields a result which is not appreciably different than what was revealed in the original equation. The results indicate the predicted MTBF for airborne equipments is lower by a factor of approximately 3.5. It is interesting to compare this ratio to the value obtained when MTBF<sub>FIELD</sub> was used (as the dependent variables opposed to MTBF<sub>PRED</sub>). In that case (Table 3), the ratio was 22 to 1. The best fit regression solution for MTBF<sub>PRED</sub> versus environment and active element count is given by:

$$MTBF_{PRED} = 6769 \left\{ \begin{array}{l} 1 \text{ Ground} \\ 0.2929 \text{ Air} \end{array} \right\} (\# \text{ Active Elements})^{-0.3703}$$

This model does indicate that there exists some disparity between equipments which operate in an air environment versus a ground environment; however, the influence generated by the number of active elements appears to be more significant. This conclusion is a result of an increase in the  $R^2$  value from the original expression of only 3 percent.

### Analysis Conclusions

The analysis conclusions turns its focus to the role that reliability predictions play in forecasting the reliability of a system under actual operating conditions. Reliability predictions are theoretical assessments of the equipment's inherent reliability based on design and application characteristics. The results derived from the relationships between predictions and other parameters can be used to induce refinements in equipment design and procurement practices. The values obtained for the dependent variables of field, reliability

demonstration and field maintenance were all determined to have a relatively high degree of correlation to the independent, predicted MTBF data. This is an encouraging observation which can be used as justification for the reliability prediction practice.

The results of the regression analysis indicates that a high degree of correlation exists between the field and reliability demonstration data when examined in relation to the predicted data and to each other. The close agreement associated with these data types lends credibility to the practice of performing formal predictions and demonstration tests to estimate equipment field reliability.

**DETAILED LISTINGS  
BY CATEGORY  
AND  
EQUIPMENT TYPE**

## DETAILED LISTINGS BY CATEGORY AND EQUIPMENT TYPE

This section contains detailed listings of reliability data contained in the System RAM automated data base. Included are reliability numerics experienced during field operation, simulated operation, production reliability verification, and reliability demonstration tests. Also included are specified, allocated and predicted reliability numerics. Types of data comprising each reliability record include:

- Category
- Equipment Type
- Equip. ID (Equipment Identification Number)
- Data Source
- App. Env. (Application Environment)
- Failures, Relevant
- Failures, Non-Rel.
- Test Hours, Operate
- Test Hours, Non-op.
- Sample Size
- Numeric Parameter
- Program Phase
- Test Date Start
- Test Date End

Entries in this section are organized first by Category, then by Equipment Type, Equipment Identification Number, and Data Source. The data are organized in this manner so that the reader may readily compare all reliability numerics for each equipment.

A complete explanation of the terms and abbreviations used in the detailed listings may be found in the User's Guide on the following pages.

## USER'S GUIDE

The description below applies to the computer listings of this section. A few minutes spent familiarizing oneself with the information supplied below will aid user interpretation of the data contained herein.

### Category:

Denotes the general functional purpose of the overall equipment as usually defined at the Set Equipment Level.

### Equipment Type:

Denotes the specific function purpose of the equipment as usually defined at the Group or Unit Equipment Level.

### Equip. ID:

The unique numerical identifier assigned to an equipment.

### Data Source:

The source of the reliability data. The applicable Data Sources are:

- Contract/Spec. Requirements
- Allocation
- Prediction
- Reliability Demonstration
- Production Reliability Verification
- Simulated Operation (CAT I, SEDS, DT&E, FOT&E, etc.)
- Field Data

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App. Env.

These environments encompass the major areas of equipment use. Some equipment will experience more than one environment during normal use. For example, equipment in spacecraft are exposed to a composite of environmental stresses. In such a case, the reliability analysis should be segmented, namely missile launch (ML) conditions during boost into and return from orbit and space flight (SF) while in orbit.

AI	Airborne Inhabited
AIA	Airborne Inhabited Attack
AIB	Airborne Inhabited Bomber
AIC	Airborne Inhabited Cargo
AIF	Airborne Inhabited Fighter
AIT	Airborne Inhabited Trainer
AIU	Airborne Inhabited/Uninhabited
ARW	Airborne Rotary Wing
AU	Airborne Uninhabited
AUA	Airborne Uninhabited Attack
AUB	Airborne Uninhabited Bomber
AUC	Airborne Uninhabited Cargo
AUF	Airborne Uninhabited Fighter
AUT	Airborne Uninhabited Trainer
CL	Cannon Launch
GBC	Ground Benign (Commercial)
GB	Ground Benign (Military)
GF	Ground Fixed
GM	Ground Mobile (Inhabited)
GMU	Ground Mobile (Uninhabited)
GP	Ground Portable
GT	Ground Transportable
MP	Manpack
MFF	Missile Free Flight
MSG	Missile Ground Benign
ML	Missile Launch

MFA	Missile Flight Airbreathing
NH	Naval Hydrofoil
NSS	Naval Sub/Surface Sheltered
NUS	Naval Sub/Surface Unsheltered
NS	Naval Surface Sheltered
NU	Naval Surface Unsheltered
NSB	Naval Undersea Sheltered
NUU	Naval Undersea Unsheltered
NR	Not Reported
SF	Space Flight
USL	Undersea Launch

#### Failures, Relevant:

The number of failures that occurred during the period that were classified as relevant. If no classifications were provided in the source documentation, all failures were classified as relevant. This is a "worst-case" scenario which results in pessimistic reliability measurements.

#### Failures, Non-Rel:

The number of failures that occurred during the period that were classified as non-relevant.

#### Test Hours, Operate:

The summation of equipment "on-hours" during the test or period.

#### Test Hours, Non-Op:

The summation of equipment "off-hours" during the test or period.

#### Sample Size:

The quantity of items under test or in operation.



Numeric Parameter:

The reliability numeric calculated using Test Hours, Operate and Relevant Failures. The parameters measured are:

MTBF Series  
MTBF Functional  
MTBMA  
MTBPM  
MTBM

Program Phase:

The applicable Program Phases are:

Development  
Production  
Operational

Test Date Start:

Start date of test or period of concern (MM/YY).

Test Date End:

End date of test or period of concern. If the start and end dates of the test are unknown, then both fields were left blank.

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
139	Contract Spec/Requirement	AUF	0	0	0	0	0	1,000.00 MTBF Series	Development		
139	Analysis & Prediction Report	AU	0	0	0	0	0	5,208.00 MTBF Series	Development		
139	Demonstration Test Report	AUF	3	2	4,301	2,357	0	1,433.66 MTBF Series	Development	01/73	06/73
139	Simulated Operation	AUF	3	3	646	0	0	215.33 MTBF Series	Development	07/72	11/74
139	Field Data and Operating Time	AUF	3	0	18,044	0	161	6,014.66 MTBF Series	Operational	01/77	06/77
139	Field Data and Operating Time	AUF	7	0	24,470	0	203	3,495.71 MTBF Series	Operational	07/77	12/77
139	Field Data and Operating Time	AUF	1	0	30,705	0	269	30,705.00 MTBF Series	Operational	01/78	06/78
139	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBF Series	Operational	07/78	12/78
139	Field Data and Operating Time	AUF	94	218	178,344	0	0	1,897.27 MTBF Functional	Operational	05/83	04/85
139	Field Data and Operating Time	AUF	312	0	178,344	0	0	571.61 MTBF Series	Operational	05/83	04/85
139	Field Data and Operating Time	AUF	227	0	173,620	0	0	764.84 MTBF Series	Operational	05/83	04/85
139	Field Data and Operating Time	AUF	67	160	173,620	0	0	2,591.34 MTBF Functional	Operational	05/83	04/85
151	Analysis & Prediction Report	AI	0	0	0	0	0	1,470.00 MTBF Series	Development		
151	Analysis & Prediction Report	AI	0	0	0	0	0	1,322.00 MTBF Series	Development		
151	Analysis & Prediction Report	AI	0	0	0	0	0	1,632.00 MTBF Series	Development	12/73	12/73
151	Demonstration Test Report	AI	27	72	4,031	2,919	0	149.29 MTBF Series	Development	09/73	09/73
155	Analysis & Prediction Report	AI	0	0	0	0	0	2,300.00 MTBF Series	Development	01/73	01/73
155	Analysis & Prediction Report	AI	0	0	0	0	0	2,331.00 MTBF Series	Development	01/74	01/74
155	Demonstration Test Report	AI	2	0	133	0	0	66.50 MTBF Series	Development	09/73	10/73
155	Demonstration Test Report	AI	5	12	899	0	0	179.80 MTBF Series	Development	10/73	10/73
155	Demonstration Test Report	AI	4	26	3,083	0	0	770.75 MTBF Series	Development	10/73	12/73
159	Contract Spec/Requirement	AI	0	0	0	0	0	1,000.00 MTBF Series	Development		
159	Analysis & Prediction Report	AI	0	0	0	0	0	1,387.00 MTBF Series	Development		
159	Demonstration Test Report	AI	22	8	4,028	1,342	0	183.09 MTBF Series	Development	10/73	12/73
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,683.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,685.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	2,008.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,686.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,226.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,214.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	908.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,790.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,817.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,821.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	2,007.00 MTBF Series	Production		

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,659.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,661.00 MTBF Series	Production		
160	Analysis & Prediction Report	AI	0	0	0	0	0	1,845.00 MTBF Series	Production		
160	Field Data and Operating Time	AI	11	0	8,468	0	15	769.81 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AI	10	1	5,957	0	15	595.70 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIA	22	0	14,622	0	0	664.63 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIA	17	0	12,297	0	0	723.35 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIC	5	1	24,985	0	20	4,997.00 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIC	1	0	17,898	0	20	17,898.00 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIC	45	0	55,693	0	0	1,237.62 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIC	23	0	184,380	0	0	8,016.52 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	0	0	1,655	0	0	2,388.16 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	10	0	4,967	0	15	496.70 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	29	0	12,725	0	0	438.79 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	49	0	36,723	0	0	749.44 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	48	0	32,092	0	0	668.58 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIF	23	0	13,857	0	0	602.47 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIT	49	0	33,925	0	0	692.34 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AIT	11	0	7,907	0	0	718.81 MTBF Functional	Operational	05/76	12/77
160	Field Data and Operating Time	AUB	24	19	131,750	0	0	5,489.58 MTBF Functional	Operational	09/83	08/85
160	Field Data and Operating Time	AUB	43	0	131,750	0	0	3,063.95 MTBMA	Operational	09/83	08/85
160	Field Data and Operating Time	AUB	7	8	67,909	0	0	9,701.28 MTBF Functional	Operational	09/83	08/85
160	Field Data and Operating Time	AUB	15	0	67,909	0	0	4,527.26 MTBMA	Operational	09/83	08/85
197	Contract Spec/Requirement	GF	0	0	0	0	0	5,000.00 MTBF Series	Development		
197	Analysis & Prediction Report	GF	0	0	0	0	0	1,787.00 MTBF Series	Development		
197	Analysis & Prediction Report	GF	0	0	0	0	0	2,375.00 MTBF Series	Development		
197	Demonstration Test Report	GF	2	7	2,980	0	0	1,490.00 MTBF Series	Development	12/74	02/75
197	Field Data and Operating Time	GF	53	0	364,260	0	150	6,872.83 MTBMA	Operational	01/78	06/78
197	Field Data and Operating Time	GF	38	0	364,260	0	150	9,585.78 MTBMA	Operational	07/78	12/78
197	Field Data and Operating Time	GF	36	0	363,180	0	142	10,088.33 MTBMA	Operational	01/79	06/79
197	Field Data and Operating Time	GF	40	0	339,060	0	90	8,476.50 MTBMA	Operational	07/79	12/79
197	Field Data and Operating Time	GF	32	0	339,060	0	90	10,595.62 MTBMA	Operational	01/80	06/80
197	Field Data and Operating Time	GF	91	0	642,510	0	119	7,060.54 MTBMA	Operational	09/81	07/82
197	Field Data and Operating Time	GF	5,754	0	29,236,500	0	1,670	5,081.07 MTBM	Operational	07/83	06/85
197	Field Data and Operating Time	GF	4,767	0	29,236,500	0	1,670	6,133.10 MTBMA	Operational	07/83	06/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	SIZE			START	END
197	Field Data and Operating Time	GF	2,007	2,760	29,236,500	0	1,670	14,567.26	MTBF Functional	Operational	07/83	06/85
229	Contract Spec/Requirement	MP	0	0	0	0	0	1,000.00	MTBF Series	Development		
229	Analysis & Prediction Report	MP	0	0	0	0	0	1,079.00	MTBF Series	Development		
229	Demonstration Test Report	MP	8	2	7,898	0	0	987.25	MTBF Series	Development		
229	Simulated Operation	MP	2	1	906	0	0	453.00	MTBF Series	Development		
229	Simulated Operation	MP	4	7	579	0	0	144.75	MTBF Series	Development	09/75	03/76
277	Contract Spec/Requirement	GF	0	0	0	0	0	2,200.00	MTBF Series	Development	08/75	12/75
277	Analysis & Prediction Report	GF	0	0	0	0	0	2,671.00	MTBF Series	Development	08/70	02/72
277	Analysis & Prediction Report	GF	0	0	0	0	0	2,698.00	MTBF Series	Development	11/71	02/72
277	Analysis & Prediction Report	GF	0	0	0	0	0	2,602.00	MTBF Series	Development	09/72	12/72
277	Demonstration Test Report	GF	2	0	225	0	0	112.50	MTBF Series	Development	12/72	03/73
277	Demonstration Test Report	GF	2	0	675	0	0	337.50	MTBF Series	Development	05/73	05/73
277	Demonstration Test Report	GF	4	0	9,229	0	0	2,307.25	MTBF Series	Development	06/73	06/73
280	Contract Spec/Requirement	GF	0	0	0	0	0	3,500.00	MTBF Series	Production	05/73	09/73
280	Analysis & Prediction Report	GF	0	0	0	0	0	4,945.00	MTBF Series	Production		
280	Demonstration Test Report	GF	2	9	5,250	0	0	2,625.00	MTBF Series	Production	09/74	01/75
302	Contract Spec/Requirement	NSS	0	0	0	0	0	1,500.00	MTBF Series	Development	01/76	03/76
302	Contract Spec/Requirement	NSS	0	0	0	0	0	3,000.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	2,186.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	3,720.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	3,861.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	3,381.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	3,070.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	3,480.00	MTBF Series	Development		
302	Analysis & Prediction Report	NSS	0	0	0	0	0	2,678.00	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	500	0	0	721.50	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	500	0	0	721.50	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	500	0	0	721.50	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	500	0	0	721.50	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	1,000	0	0	1,443.00	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	1,000	0	0	1,443.00	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	1,000	0	0	1,443.00	MTBF Series	Operational		
302	Analysis & Prediction Report	NSS	0	0	1,000	0	0	1,443.00	MTBF Series	Operational		
302	Field Data and Operating Time	NS	30	0	119,281	0	28	3,976.03	MTBF Functional	Operational	05/76	04/77
302	Field Data and Operating Time	NS	3	0	4,035	0	0	1,345.00	MTBMA	Operational	03/79	09/79

## EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
302	Field Data and Operating Time	NS	1	2	4,035	0	0	4,035.00 MTBF Functional	Operational	03/79	09/79
302	Field Data and Operating Time	NSB	5	0	12,683	0	0	2,536.60 MTBF Functional	Operational	05/76	04/77
336	Contract Spec/Requirement	NS	0	0	0	0	0	1,000.00 MTBF Series	Operational		
336	Analysis & Prediction Report	NS	0	0	0	0	0	1,200.00 MTBF Series	Operational		
336	Field Data and Operating Time	NS	7	2	153,454	50,570	17	21,922.00 MTBF Functional	Operational	06/76	04/77
380	Contract Spec/Requirement	AUC	0	0	0	0	0	1,000.00 MTBF Series	Development		
380	Analysis & Prediction Report	AUC	0	0	0	0	0	1,560.00 MTBF Series	Development		
380	Demonstration Test Report	AUC	3	18	4,283	0	0	1,427.66 MTBF Series	Development	10/80	02/81
380	Field Data and Operating Time	AIC	1,557	1,410	356,310	0	2	228.84 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	2,967	0	356,310	0	0	120.09 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	135	65	70,893	0	0	525.13 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	200	0	70,893	0	0	354.46 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	10	11	2,305	0	0	230.50 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	21	0	2,305	0	0	109.76 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	3	2	10,368	0	0	3,456.00 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	5	0	10,368	0	0	2,073.60 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	85	136	60,921	0	0	716.71 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AIC	221	0	60,921	0	0	275.66 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AUB	662	785	136,257	0	0	205.82 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AUB	1,447	0	136,257	0	0	94.16 MTBMA	Operational	07/83	06/85
380	Field Data and Operating Time	AUB	343	473	70,915	0	0	206.74 MTBF Functional	Operational	07/83	06/85
380	Field Data and Operating Time	AUB	314	0	70,915	0	0	225.84 MTBMA	Operational	07/83	06/85
384	Analysis & Prediction Report	AUF	0	0	0	0	0	600.00 MTBF Series	Development		
384	Field Data and Operating Time	AUF	20	5	24,207	0	0	1,210.35 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	25	0	24,207	0	0	968.28 MTBMA	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	518	664	39,513	0	0	76.27 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	1,182	0	39,513	0	0	33.42 MTBMA	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	18	6	13,740	0	0	763.33 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	24	0	13,740	0	0	572.50 MTBMA	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	626	321	38,558	0	0	61.59 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	947	0	38,558	0	0	40.71 MTBMA	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	521	288	39,991	0	0	76.75 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	807	0	39,991	0	0	49.55 MTBMA	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	624	340	43,935	0	0	70.40 MTBF Functional	Operational	06/83	05/85
384	Field Data and Operating Time	AUF	964	0	43,935	0	0	45.57 MTBMA	Operational	06/83	05/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Amplifier, RF

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
146	Analysis & Prediction Report	AUF	0	0	0	0	0	5,914.00 MTBF Series	Development	01/73	06/73
146	Demonstration Test Report	AUF	3	2	4,301	2,357	0	1,433.66 MTBF Series	Development	07/72	11/74
146	Simulated Operation	AUF	3	3	646	0	0	215.33 MTBF Series	Development	04/74	06/75
146	Simulated Operation	AUF	1	0	441	0	0	441.00 MTBF Series	Operational	05/83	04/85
146	Field Data and Operating Time	AUF	54	92	178,344	0	0	3,302.66 MTBF Functional	Operational	05/83	04/85
146	Field Data and Operating Time	AUF	146	0	178,344	0	0	1,221.53 MTBMA	Operational	05/83	04/85
146	Field Data and Operating Time	AUF	47	77	173,620	0	0	3,694.04 MTBF Functional	Operational	05/83	04/85
146	Field Data and Operating Time	AUF	124	0	173,620	0	0	1,400.16 MTBMA	Operational	05/83	04/85

Communications, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
147	Analysis & Prediction Report	AUF	0	0	0	0	0	43,631.00 MTBF Series	Development	01/73	06/73
147	Demonstration Test Report	AUF	0	0	4,301	2,357	0	6,206.34 MTBF Series	Development	07/72	11/74
147	Simulated Operation	AUF	0	0	646	0	0	932.17 MTBF Series	Operational	05/83	04/85
147	Field Data and Operating Time	AUF	10	23	178,344	0	0	17,834.40 MTBF Functional	Operational	05/83	04/85
147	Field Data and Operating Time	AUF	33	0	178,344	0	0	5,404.36 MTBMA	Operational	05/83	04/85
147	Field Data and Operating Time	AUF	12	16	173,620	0	0	14,468.33 MTBF Functional	Operational	05/83	04/85
147	Field Data and Operating Time	AUF	18	0	173,620	0	0	9,645.55 MTBMA	Operational	05/83	04/85

Communications, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
36	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
36	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
36	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
36	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
36	Field Data and Operating Time	AIF	286	115	204,853	0	0	716.26 MTBF Functional	Operational	05/83	04/85
36	Field Data and Operating Time	AIF	501	0	204,853	0	0	408.88 MTBMA	Operational	05/83	04/85
36	Field Data and Operating Time	AIF	480	345	198,726	0	0	414.01 MTBF Functional	Operational	05/83	04/85
36	Field Data and Operating Time	AIF	825	0	198,726	0	0	240.88 MTBMA	Operational	05/83	04/85
37	Contract Spec/Requirement	AIF	0	0	0	0	0	2,590.00 MTBF Series	Development	05/83	04/85
37	Analysis & Prediction Report	AI	0	0	0	0	0	3,126.00 MTBF Series	Development	05/83	04/85

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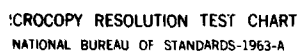
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# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
37	AIF	Demonstration Test Report	3	9	7,355	4,903	0	2,451.66 MTBF Series	Development	03/74	03/75
37	AIF	Demonstration Test Report	5	4	975	650	0	195.00 MTBF Series	Development	08/73	11/73
37	AIF	Demonstration Test Report	3	17	969	646	0	323.00 MTBF Series	Development	03/73	06/73
37	AIF	Production Sample Verification	1	5	3,544	2,364	0	3,544.00 MTBF Series	Production	06/75	09/75
37	AIF	Production Sample Verification	1	1	2,864	1,908	0	2,864.00 MTBF Series	Production	01/76	04/76
37	AIF	Production Sample Verification	1	0	2,843	1,895	0	2,843.00 MTBF Series	Production	01/77	04/77
37	AIF	Simulated Operation	5	0	9,472	0	0	1,894.40 MTBF Series	Development	07/72	11/74
37	AIF	Field Data and Operating Time	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
37	AIF	Field Data and Operating Time	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
37	AIF	Field Data and Operating Time	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
37	AIF	Field Data and Operating Time	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
37	AIF	Field Data and Operating Time	937	854	204,853	0	0	218.62 MTBF Functional	Operational	05/83	04/85
37	AIF	Field Data and Operating Time	1,791	0	204,853	0	0	114.37 MTBMA	Operational	05/83	04/85
37	AIF	Field Data and Operating Time	937	854	198,726	0	0	212.08 MTBF Functional	Operational	05/83	04/85
37	AIF	Field Data and Operating Time	1,791	0	198,726	0	0	110.95 MTBMA	Operational	05/83	04/85
38	AIF	Contract Spec/Requirement	0	0	0	0	0	10,040.00 MTBF Series	Development		
38	AI	Analysis & Prediction Report	0	0	0	0	0	21,050.00 MTBF Series	Development		
38	AIF	Demonstration Test Report	1	4	7,355	4,903	0	7,355.00 MTBF Series	Development	03/74	03/75
38	AIF	Demonstration Test Report	0	0	975	650	0	1,406.92 MTBF Series	Development	08/73	11/73
38	AIF	Demonstration Test Report	0	1	969	646	0	1,398.26 MTBF Series	Development	03/73	06/73
38	AIF	Production Sample Verification	0	0	3,544	2,364	0	5,113.99 MTBF Series	Production	06/75	09/75
38	AIF	Production Sample Verification	0	1	2,864	1,908	0	4,132.75 MTBF Series	Production	01/76	04/76
38	AIF	Production Sample Verification	0	0	2,843	1,895	0	4,102.45 MTBF Series	Production	01/77	04/77
38	AIF	Simulated Operation	0	0	9,472	0	0	13,668.10 MTBF Series	Development	07/72	11/74
38	AIF	Field Data and Operating Time	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
38	AIF	Field Data and Operating Time	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
38	AIF	Field Data and Operating Time	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
38	AIF	Field Data and Operating Time	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
38	AIF	Field Data and Operating Time	91	56	178,344	0	0	1,959.82 MTBF Functional	Operational	05/83	04/85
38	AIF	Field Data and Operating Time	147	0	178,344	0	0	1,213.22 MTBMA	Operational	05/83	04/85
38	AIF	Field Data and Operating Time	62	40	173,620	0	0	2,800.32 MTBF Functional	Operational	05/83	04/85
38	AIF	Field Data and Operating Time	102	0	173,620	0	0	1,702.15 MTBMA	Operational	05/83	04/85
39	AIF	Contract Spec/Requirement	0	0	0	0	0	24,150.00 MTBF Series	Development		
39	AI	Analysis & Prediction Report	0	0	0	0	0	57,800.00 MTBF Series	Development		
39	AIF	Demonstration Test Report	0	0	7,355	4,903	0	10,613.27 MTBF Series	Development	03/74	03/75

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
39	Demonstration Test Report	AIF	0	1	975	650	0	1,406.92 MTBF Series	Development	08/73	11/73
39	Demonstration Test Report	AIF	0	0	969	646	0	1,398.26 MTBF Series	Development	03/73	06/73
39	Production Sample Verification	AIF	0	0	3,544	2,364	0	5,113.99 MTBF Series	Production	06/75	09/75
39	Production Sample Verification	AIF	0	0	2,864	1,908	0	4,132.75 MTBF Series	Production	01/76	04/76
39	Production Sample Verification	AIF	0	0	2,843	1,895	0	4,102.45 MTBF Series	Production	01/77	04/77
39	Simulated Operation	AIF	0	0	1,088	0	0	1,569.98 MTBF Series	Development	07/72	11/74
39	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
39	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
39	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
39	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
39	Field Data and Operating Time	AIF	58	41	178,344	0	0	3,074.89 MTBF Functional	Operational	05/83	04/85
39	Field Data and Operating Time	AIF	99	0	178,344	0	0	1,801.45 MTBMA	Operational	05/83	04/85
39	Field Data and Operating Time	AIF	45	18	173,620	0	0	3,858.22 MTBF Functional	Operational	05/83	04/85
39	Field Data and Operating Time	AIF	63	0	173,620	0	0	2,755.87 MTBMA	Operational	05/83	04/85
41	Contract Spec/Requirement	AIF	0	0	0	0	0	12,500.00 MTBF Series	Development		
41	Analysis & Prediction Report	AI	0	0	0	0	0	20,300.00 MTBF Series	Development		
41	Demonstration Test Report	AIF	0	1	7,355	4,903	0	10,613.27 MTBF Series	Development	03/74	03/75
41	Demonstration Test Report	AIF	0	0	975	650	0	1,406.92 MTBF Series	Development	08/73	11/73
41	Demonstration Test Report	AIF	0	1	969	646	0	1,398.26 MTBF Series	Development	03/73	06/73
41	Production Sample Verification	AIF	0	1	3,544	2,364	0	5,113.99 MTBF Series	Production	06/75	09/75
41	Production Sample Verification	AIF	0	0	2,864	1,908	0	4,132.75 MTBF Series	Production	01/76	04/76
41	Production Sample Verification	AIF	0	0	2,843	1,895	0	4,102.45 MTBF Series	Production	01/77	04/77
41	Simulated Operation	AIF	0	0	9,472	0	0	13,668.10 MTBF Series	Development	07/72	11/74
41	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
41	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
41	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
41	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
41	Field Data and Operating Time	AIF	427	267	204,853	0	0	479.74 MTBF Functional	Operational	05/83	04/85
41	Field Data and Operating Time	AIF	694	0	204,853	0	0	295.17 MTBMA	Operational	05/83	04/85
41	Field Data and Operating Time	AIF	136	111	198,726	0	0	1,461.22 MTBF Functional	Operational	05/83	04/85
41	Field Data and Operating Time	AIF	247	0	198,726	0	0	804.55 MTBMA	Operational	05/83	04/85
42	Contract Spec/Requirement	AIF	0	0	0	0	0	73,500.00 MTBF Series	Development		
42	Analysis & Prediction Report	AI	0	0	0	0	0	44,700.00 MTBF Series	Development		
42	Demonstration Test Report	AIF	0	0	7,355	4,903	0	10,613.27 MTBF Series	Development	03/74	03/75
42	Demonstration Test Report	AIF	0	1	975	650	0	1,406.92 MTBF Series	Development	08/73	11/73

# BEERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE				START	END
42	Demonstration Test Report	AIF	1	0	969	646	0	969.00 MTBF	Series	Development	03/73	06/73
42	Production Sample Verification	AIF	0	0	3,544	2,364	0	5,113.99 MTBF	Series	Production	06/75	09/75
42	Production Sample Verification	AIF	0	0	2,864	1,908	0	4,132.75 MTBF	Series	Production	01/76	04/76
42	Production Sample Verification	AIF	0	0	2,843	1,895	0	4,102.45 MTBF	Series	Production	01/77	04/77
42	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM		Operational	01/77	06/77
42	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM		Operational	07/77	12/77
42	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM		Operational	01/78	06/78
42	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM		Operational	07/78	12/78
42	Field Data and Operating Time	AIF	1,751	0	55,926	0	0	31.93 MTBMA		Operational	05/83	04/85
42	Field Data and Operating Time	AIF	934	817	55,926	0	0	59.87 MTBF	Functional	Operational	05/83	04/85
42	Field Data and Operating Time	AIF	39	17	53,788	0	0	1,379.17 MTBF	Functional	Operational	05/83	04/85
42	Field Data and Operating Time	AIF	56	0	53,788	0	0	960.50 MTBMA		Operational	05/83	04/85
152	Analysis & Prediction Report	AI	0	0	0	0	0	31,427.00 MTBF	Series	Development		
152	Analysis & Prediction Report	AI	0	0	0	0	0	12,060.00 MTBF	Series	Development		
152	Analysis & Prediction Report	AI	0	0	0	0	0	17,150.00 MTBF	Series	Development		
152	Demonstration Test Report	AI	1	0	4,031	2,919	0	4,031.00 MTBF	Series	Development		
153	Analysis & Prediction Report	AI	0	0	0	0	0	16,116.00 MTBF	Series	Development		
153	Analysis & Prediction Report	AI	0	0	0	0	0	18,200.00 MTBF	Series	Development		
153	Analysis & Prediction Report	AI	0	0	0	0	0	24,709.00 MTBF	Series	Development		
153	Demonstration Test Report	AI	2	0	4,031	2,919	0	2,015.50 MTBF	Series	Development		
156	Analysis & Prediction Report	AI	0	0	0	0	0	17,223.00 MTBF	Series	Development		
156	Analysis & Prediction Report	AI	0	0	0	0	0	13,842.00 MTBF	Series	Development		
156	Demonstration Test Report	AI	1	0	133	0	0	133.00 MTBF	Series	Development	09/73	10/73
156	Demonstration Test Report	AI	0	0	899	0	0	1,297.25 MTBF	Series	Development	10/73	10/73
156	Demonstration Test Report	AI	0	0	3,083	0	0	4,448.77 MTBF	Series	Development	10/73	12/73
156	Demonstration Test Report	AI	0	1	376	0	0	542.56 MTBF	Series	Development	11/73	12/73
157	Analysis & Prediction Report	AI	0	0	0	0	0	6,186.00 MTBF	Series	Development		
157	Analysis & Prediction Report	AI	0	0	0	0	0	18,410.00 MTBF	Series	Development		
157	Demonstration Test Report	AI	0	0	133	0	0	191.91 MTBF	Series	Development	09/73	10/73
157	Demonstration Test Report	AI	0	0	988	0	0	1,425.68 MTBF	Series	Development	10/73	10/73
157	Demonstration Test Report	AI	1	0	3,083	0	0	3,083.00 MTBF	Series	Development	10/73	12/73
157	Demonstration Test Report	AI	0	1	376	0	0	542.56 MTBF	Series	Development	11/73	12/73
161	Analysis & Prediction Report	AI	0	0	0	0	0	7,968.00 MTBF	Series	Development		
161	Demonstration Test Report	AI	6	1	4,028	1,342	0	671.33 MTBF	Series	Development	10/73	12/73
162	Analysis & Prediction Report	AI	0	0	0	0	0	5,633.00 MTBF	Series	Production		

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

## RELIABILITY DATA

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
162	Production Sample Verification	AI	0	0	133	66	0	191.91 MTBF Series	Production	08/75	08/75
162	Production Sample Verification	AI	4	1	987	493	14	246.75 MTBF Series	Production	09/75	09/75
162	Production Sample Verification	AI	0	0	611	305	11	881.67 MTBF Series	Production	10/75	10/75
162	Production Sample Verification	AI	1	0	740	370	12	740.00 MTBF Series	Production	11/75	11/75
162	Production Sample Verification	AI	2	0	5,430	2,715	76	2,715.00 MTBF Series	Production	12/75	12/75
162	Production Sample Verification	AI	5	1	4,713	2,357	64	942.60 MTBF Series	Production	01/76	01/76
162	Production Sample Verification	AI	8	2	7,722	3,861	105	965.25 MTBF Series	Production	02/76	02/76
162	Production Sample Verification	AI	8	0	3,921	1,960	48	490.12 MTBF Series	Production	03/76	03/76
162	Production Sample Verification	AI	3	0	4,494	2,247	63	1,498.00 MTBF Series	Production	04/76	04/76
162	Production Sample Verification	AI	5	0	908	454	14	181.60 MTBF Series	Production	05/76	05/76
162	Production Sample Verification	AI	3	0	3,610	1,805	62	1,203.33 MTBF Series	Production	06/76	06/76
162	Production Sample Verification	AI	12	1	4,209	2,104	60	350.75 MTBF Series	Production	07/76	07/76
162	Production Sample Verification	AI	7	1	10,050	5,025	161	1,435.71 MTBF Series	Production	08/76	08/76
162	Production Sample Verification	AI	3	3	5,174	2,587	82	1,724.66 MTBF Series	Production	09/76	09/76
162	Production Sample Verification	AI	4	0	5,463	2,731	86	1,365.75 MTBF Series	Production	10/76	10/76
162	Production Sample Verification	AI	70	10	6,578	3,289	113	93.97 MTBF Series	Production	11/76	11/76
162	Production Sample Verification	AI	4	0	5,393	2,696	90	1,348.25 MTBF Series	Production	12/76	12/76
162	Production Sample Verification	AI	4	1	5,632	2,816	93	1,408.00 MTBF Series	Production	01/77	01/77
162	Production Sample Verification	AI	2	1	2,207	1,104	36	1,103.50 MTBF Series	Production	02/77	02/77
162	Production Sample Verification	AI	1	0	1,481	740	27	1,481.00 MTBF Series	Production	03/77	03/77
162	Production Sample Verification	AI	1	0	63	31	0	63.00 MTBF Series	Production	04/77	04/77
162	Production Sample Verification	AI	2	0	937	469	33	468.50 MTBF Series	Production	05/77	05/77
162	Production Sample Verification	AI	0	0	300	150	12	432.90 MTBF Series	Production	07/77	07/77
162	Production Sample Verification	AI	0	0	975	486	39	1,404.04 MTBF Series	Production	08/77	08/77
162	Production Sample Verification	AI	1	0	2,312	1,156	89	2,312.00 MTBF Series	Production	09/77	09/77
162	Production Sample Verification	AI	2	0	1,983	991	74	991.50 MTBF Series	Production	10/77	10/77
162	Production Sample Verification	AI	0	0	2,009	1,004	58	2,898.98 MTBF Series	Production	11/77	11/77
162	Production Sample Verification	AI	0	0	1,670	835	55	2,409.81 MTBF Series	Production	12/77	12/77
162	Production Sample Verification	AI	3	0	1,764	882	59	588.00 MTBF Series	Production	01/78	01/78
162	Production Sample Verification	AI	1	0	1,563	782	58	1,563.00 MTBF Series	Production	02/78	02/78
162	Production Sample Verification	AI	0	0	281	141	11	405.48 MTBF Series	Production	03/77	03/77
162	Production Sample Verification	AI	0	0	520	260	20	750.36 MTBF Series	Production	04/77	04/77
162	Field Data and Operating Time	AI	0	0	8,468	0	15	12,219.33 MTBF Functional	Operational	05/76	12/77
162	Field Data and Operating Time	AI	0	0	5,957	0	15	8,595.95 MTBF Functional	Operational	05/76	12/77
162	Field Data and Operating Time	AIF	44	18	53,220	0	0	1,209.54 MTBF Functional	Operational	05/83	04/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
162	Field Data and Operating Time	AIT	62	0	53,220	0	0	858.38 MTBMA	Operational	05/83	04/85
162	Field Data and Operating Time	AIT	47	8	62,765	0	0	1,335.42 MTBF Functional	Operational	08/83	07/85
162	Field Data and Operating Time	AIT	55	0	62,765	0	0	1,141.18 MTBMA	Operational	08/83	07/85
162	Field Data and Operating Time	AIT	317	49	62,765	0	0	197.99 MTBF Functional	Operational	08/83	07/85
162	Field Data and Operating Time	AIT	366	0	62,765	0	0	171.48 MTBMA	Operational	08/83	07/85
163	Analysis & Prediction Report	AI	0	0	0	0	0	5,645.00 MTBF Series	Production		
163	Production Sample Verification	AI	1	0	1,314	657	22	1,314.00 MTBF Series	Production	08/75	08/75
163	Production Sample Verification	AI	1	0	2,462	1,231	17	2,462.00 MTBF Series	Production	09/75	09/75
163	Production Sample Verification	AI	3	0	1,275	633	21	425.00 MTBF Series	Production	10/75	10/75
163	Production Sample Verification	AI	0	0	1,285	643	19	1,854.25 MTBF Series	Production	11/75	11/75
163	Production Sample Verification	AI	0	0	1,447	724	21	2,088.02 MTBF Series	Production	12/75	12/75
163	Production Sample Verification	AI	2	1	1,985	992	29	992.50 MTBF Series	Production	01/76	01/76
163	Production Sample Verification	AI	0	0	294	147	0	424.24 MTBF Series	Production	2/76	02/76
163	Production Sample Verification	AI	0	0	3,326	1,663	48	4,799.42 MTBF Series	Production	03/76	03/76
163	Production Sample Verification	AI	4	2	3,675	1,838	51	918.75 MTBF Series	Production	04/76	04/76
163	Production Sample Verification	AI	3	0	3,679	1,840	61	1,226.33 MTBF Series	Production	05/76	05/76
163	Production Sample Verification	AI	8	1	7,766	3,883	122	970.75 MTBF Series	Production	06/76	06/76
163	Production Sample Verification	AI	14	0	11,106	5,553	174	793.28 MTBF Series	Production	07/76	07/76
163	Production Sample Verification	AI	6	2	11,706	5,853	193	1,951.00 MTBF Series	Production	08/76	08/76
163	Production Sample Verification	AI	7	3	7,791	3,895	118	1,113.00 MTBF Series	Production	09/76	09/76
163	Production Sample Verification	AI	0	0	8,217	4,108	138	11,857.14 MTBF Series	Production	10/76	10/76
163	Production Sample Verification	AI	5	1	9,257	4,628	158	1,851.40 MTBF Series	Production	11/76	11/76
163	Production Sample Verification	AI	4	0	9,005	4,502	147	2,251.25 MTBF Series	Production	12/76	12/76
163	Production Sample Verification	AI	1	0	9,526	4,763	165	9,526.00 MTBF Series	Production	01/77	01/77
163	Production Sample Verification	AI	5	1	12,978	6,489	210	2,595.60 MTBF Series	Production	02/77	02/77
163	Production Sample Verification	AI	5	0	12,461	6,231	222	2,492.20 MTBF Series	Production	03/77	03/77
163	Production Sample Verification	AI	1	0	1,845	922	69	1,845.00 MTBF Series	Production	04/77	04/77
163	Production Sample Verification	AI	6	0	5,959	2,979	224	993.16 MTBF Series	Production	05/77	05/77
163	Production Sample Verification	AI	8	0	8,171	4,081	316	1,021.37 MTBF Series	Production	06/77	06/77
163	Production Sample Verification	AI	3	0	2,271	1,136	86	757.00 MTBF Series	Production	07/77	07/77
163	Production Sample Verification	AI	8	0	9,500	4,750	324	1,187.50 MTBF Series	Production	08/77	08/77
163	Production Sample Verification	AI	6	1	4,647	2,324	169	774.50 MTBF Series	Production	09/77	09/77
163	Production Sample Verification	AI	1	0	4,573	2,286	176	4,573.00 MTBF Series	Production	10/77	10/77
163	Production Sample Verification	AI	2	0	6,242	3,121	226	3,121.00 MTBF Series	Production	11/77	11/77
163	Production Sample Verification	AI	1	0	5,483	2,741	166	5,483.00 MTBF Series	Production	12/77	12/77

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP		APP	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
ID	DATA SOURCE	ENV	RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
163	Production Sample Verification	AI	2	0	4,924	2,462	169	2,462.00 MTBF Series	Production	01/78	01/78
163	Production Sample Verification	AI	2	0	4,368	2,184	137	2,184.00 MTBF Series	Production	02/78	02/78
163	Production Sample Verification	AI	0	0	1,123	562	31	1,620.49 MTBF Series	Production	03/77	03/77
163	Field Data and Operating Time	AIB	4	0	131,750	0	0	32,937.50 MTBF Functional	Operational	09/83	08/85
163	Field Data and Operating Time	AIB	4	0	131,750	0	0	32,937.50 MTBMA	Operational	09/83	08/85
163	Field Data and Operating Time	AIB	6	0	67,909	0	0	11,318.16 MTBF Functional	Operational	09/83	08/85
163	Field Data and Operating Time	AIB	6	0	67,909	0	0	11,318.16 MTBMA	Operational	09/83	08/85
163	Field Data and Operating Time	AIC	3	0	24,985	0	20	8,328.33 MTBF Functional	Operational	05/76	12/77
163	Field Data and Operating Time	AIC	1	0	17,898	0	20	17,898.00 MTBF Functional	Operational	05/76	12/77
163	Field Data and Operating Time	AIF	9	0	8,278	0	25	919.77 MTBF Functional	Operational	05/76	12/77
163	Field Data and Operating Time	AIT	162	13	101,203	0	0	624.70 MTBF Functional	Operational	06/83	05/85
163	Field Data and Operating Time	AIT	175	0	101,203	0	0	578.30 MTBMA	Operational	06/83	05/85
163	Field Data and Operating Time	AIT	69	12	128,203	0	0	1,858.01 MTBF Functional	Operational	06/83	05/85
163	Field Data and Operating Time	AIT	81	0	128,203	0	0	1,582.75 MTBMA	Operational	06/83	05/85
164	Analysis & Prediction Report	AI	0	0	0	0	0	5,655.00 MTBF Series	Production		
164	Production Sample Verification	AI	0	0	1,155	578	20	1,666.66 MTBF Series	Production	02/77	02/77
164	Production Sample Verification	AI	2	0	8,299	4,150	32	4,149.50 MTBF Series	Production	03/77	03/77
164	Production Sample Verification	AI	0	0	322	161	12	464.64 MTBF Series	Production	04/77	04/77
164	Production Sample Verification	AI	0	0	451	226	18	650.79 MTBF Series	Production	05/77	05/77
164	Production Sample Verification	AI	1	0	703	351	28	703.00 MTBF Series	Production	07/77	07/77
164	Production Sample Verification	AI	0	0	26	13	0	37.51 MTBF Series	Production	08/77	08/77
164	Production Sample Verification	AI	0	0	511	255	19	737.37 MTBF Series	Production	09/77	09/77
164	Production Sample Verification	AI	1	0	500	250	18	500.00 MTBF Series	Production	10/77	10/77
164	Production Sample Verification	AI	1	0	862	431	25	862.00 MTBF Series	Production	11/77	11/77
164	Production Sample Verification	AI	0	0	735	366	28	1,060.60 MTBF Series	Production	12/77	12/77
164	Production Sample Verification	AI	0	0	62	31	0	89.46 MTBF Series	Production	01/78	01/78
164	Production Sample Verification	AI	0	0	26	13	0	37.51 MTBF Series	Production	03/77	03/77
164	Field Data and Operating Time	AIT	40	6	101,203	0	0	2,530.07 MTBF Functional	Operational	06/83	05/85
164	Field Data and Operating Time	AIT	46	0	101,203	0	0	2,200.06 MTBMA	Operational	06/83	05/85
165	Production Sample Verification	AI	0	0	326	163	13	470.41 MTBF Series	Production	06/77	06/77
165	Production Sample Verification	AI	0	0	24	12	0	34.63 MTBF Series	Production	07/77	07/77
165	Production Sample Verification	AI	0	0	199	99	0	287.15 MTBF Series	Production	08/77	08/77
165	Production Sample Verification	AI	0	0	774	384	31	1,116.88 MTBF Series	Production	09/77	09/77
165	Production Sample Verification	AI	3	0	1,737	868	59	579.00 MTBF Series	Production	12/77	12/77
165	Production Sample Verification	AI	1	0	1,068	534	32	1,068.00 MTBF Series	Production	01/78	01/78

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
165	Production Sample Verification	AI	0	0	670	335	21	966.81 MTBF Series	Production	02/78	02/78
166	Analysis & Prediction Report	AI	0	0	0	0	0	11,546.00 MTBF Series	Development		
166	Demonstration Test Report	AI	4	1	4,028	1,342	0	1,007.00 MTBF Series	Development	10/73	12/73
167	Analysis & Prediction Report	AI	0	0	0	0	0	22,740.00 MTBF Series	Production		
167	Production Sample Verification	AI	2	0	2,555	1,278	39	1,277.50 MTBF Series	Production	08/75	08/75
167	Production Sample Verification	AI	2	0	3,253	1,627	50	1,626.50 MTBF Series	Production	09/75	09/75
167	Production Sample Verification	AI	13	1	5,741	2,870	86	441.61 MTBF Series	Production	10/75	10/75
167	Production Sample Verification	AI	5	0	6,929	3,465	110	1,385.80 MTBF Series	Production	11/75	11/75
167	Production Sample Verification	AI	3	0	4,399	2,199	59	1,466.33 MTBF Series	Production	12/75	12/75
167	Production Sample Verification	AI	9	1	2,686	1,343	41	298.44 MTBF Series	Production	01/76	01/76
167	Production Sample Verification	AI	0	0	4,597	2,298	80	6,633.47 MTBF Series	Production	02/76	02/76
167	Production Sample Verification	AI	2	0	3,060	1,530	35	1,530.00 MTBF Series	Production	03/76	03/76
167	Production Sample Verification	AI	2	0	5,892	2,946	79	2,946.00 MTBF Series	Production	04/76	04/76
167	Production Sample Verification	AI	1	0	3,881	1,940	63	3,881.00 MTBF Series	Production	05/76	05/76
167	Production Sample Verification	AI	4	0	7,538	3,769	110	1,884.50 MTBF Series	Production	06/76	06/76
167	Production Sample Verification	AI	6	0	4,932	2,466	69	822.00 MTBF Series	Production	07/76	07/76
167	Production Sample Verification	AI	6	0	7,066	3,533	104	1,177.66 MTBF Series	Production	08/76	08/76
167	Production Sample Verification	AI	9	0	5,193	2,597	73	577.00 MTBF Series	Production	09/76	09/76
167	Production Sample Verification	AI	8	0	4,283	2,141	75	535.37 MTBF Series	Production	10/76	10/76
167	Production Sample Verification	AI	3	0	4,850	2,425	65	1,616.66 MTBF Series	Production	11/76	11/76
167	Production Sample Verification	AI	0	0	2,083	1,041	34	3,005.77 MTBF Series	Production	12/76	12/76
167	Production Sample Verification	AI	0	0	4,007	2,003	70	5,782.10 MTBF Series	Production	01/77	01/77
167	Production Sample Verification	AI	0	0	1,301	651	23	1,877.34 MTBF Series	Production	02/77	02/77
167	Production Sample Verification	AI	3	0	4,009	2,005	58	1,336.33 MTBF Series	Production	03/77	03/77
167	Production Sample Verification	AI	2	0	233	116	0	116.50 MTBF Series	Production	04/77	04/77
167	Production Sample Verification	AI	2	0	2,164	1,082	72	1,082.00 MTBF Series	Production	05/77	05/77
167	Production Sample Verification	AI	3	0	1,412	706	56	470.66 MTBF Series	Production	06/77	06/77
167	Production Sample Verification	AI	0	0	265	133	11	382.39 MTBF Series	Production	07/77	07/77
167	Production Sample Verification	AI	2	1	2,075	1,037	83	1,037.50 MTBF Series	Production	08/77	08/77
167	Production Sample Verification	AI	1	0	1,231	616	48	1,231.00 MTBF Series	Production	09/77	09/77
167	Production Sample Verification	AI	5	0	2,551	1,275	95	510.20 MTBF Series	Production	10/77	10/77
167	Production Sample Verification	AI	1	0	2,165	1,082	79	2,165.00 MTBF Series	Production	11/77	11/77
167	Production Sample Verification	AI	5	0	1,200	600	41	240.00 MTBF Series	Production	12/77	12/77
167	Production Sample Verification	AI	1	0	1,465	733	42	1,465.00 MTBF Series	Production	01/78	01/78
167	Production Sample Verification	AI	0	0	1,188	594	44	1,714.28 MTBF Series	Production	02/78	02/78

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
167	Production Sample Verification	AI	2	0	2,317	1,158	95	1,158.50 MTBF Series	Production	04/77	04/77
167	Production Sample Verification	AI	0	0	275	137	0	396.82 MTBF Series	Production	05/77	05/77
167	Field Data and Operating Time	AIA	66	76	450,653	0	0	6,828.07 MTBF Functional	Operational	06/83	05/85
167	Field Data and Operating Time	AIA	142	0	450,653	0	0	3,173.61 MTBMA	Operational	06/83	05/85
167	Field Data and Operating Time	AIF	0	0	4,191	0	10	6,047.61 MTBF Functional	Operational	05/76	12/77
167	Field Data and Operating Time	AIF	0	0	2,431	0	10	3,507.93 MTBF Functional	Operational	05/76	12/77
198	Demonstration Test Report	GF	0	0	2,980	0	0	4,300.14 MTBF Series	Development	12/74	02/75
198	Field Data and Operating Time	GF	19	0	19,172	0	150	1,009.05 MTBMA	Operational	01/78	06/78
198	Field Data and Operating Time	GF	10	0	364,260	0	150	36,426.00 MTBMA	Operational	07/78	12/78
198	Field Data and Operating Time	GF	5	0	363,180	0	142	72,636.00 MTBMA	Operational	01/79	06/79
198	Field Data and Operating Time	GF	5	0	339,060	0	90	67,812.00 MTBMA	Operational	07/79	12/79
198	Field Data and Operating Time	GF	3	0	339,060	0	90	113,020.00 MTBMA	Operational	01/80	06/80
198	Field Data and Operating Time	GF	2	0	642,510	0	119	321,255.00 MTBMA	Operational	09/81	07/82
198	Field Data and Operating Time	GF	446	0	29,236,500	0	119	65,552.69 MTBMA	Operational	09/81	07/82
198	Field Data and Operating Time	GF	233	164	29,236,500	0	119	125,478.54 MTBF Functional	Operational	09/81	07/82
198	Field Data and Operating Time	GF	397	0	29,236,500	0	119	73,643.57 MTBMA	Operational	09/81	07/82
382	Analysis & Prediction Report	AIC	0	0	0	0	0	31,500.00 MTBF Series	Development		
382	Field Data and Operating Time	AIB	245	55	136,257	0	0	556.15 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIB	300	0	136,257	0	0	454.19 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIB	103	52	70,915	0	0	688.49 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIB	155	0	70,915	0	0	457.51 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	583	179	356,310	0	0	611.16 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	762	0	356,310	0	0	467.59 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	30	7	70,893	0	0	2,363.10 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	37	0	70,893	0	0	1,916.02 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	7	1	2,304	0	0	329.14 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	8	0	2,304	0	0	288.00 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	1	0	10,368	0	0	10,368.00 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	1	0	10,368	0	0	10,368.00 MTBMA	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	9	2	60,921	0	0	6,769.00 MTBF Functional	Operational	07/83	06/85
382	Field Data and Operating Time	AIC	11	0	60,921	0	0	5,538.27 MTBMA	Operational	07/83	06/85



## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Interconnect/Distribute

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
168	Analysis & Prediction Report	AU	0	0	0	0	0	822,233.00 MTBF Series	Development	10/73	12/73
168	Demonstration Test Report	AU	0	0	4,028	1,342	0	5,812.40 MTBF Series	Development	00000	00000
169	Analysis & Prediction Report	AU	0	0	0	0	0	678,104.00 MTBF Series	Production	09/83	05/85
169	Field Data and Operating Time	AUB	0	2	131,750	0	0	190,115.44 MTBF Functional	Operational	09/83	05/85
169	Field Data and Operating Time	AUB	2	0	131,750	0	0	65,875.00 MTBMA	Operational	09/83	05/85
169	Field Data and Operating Time	AUB	1	1	67,909	0	0	67,909.00 MTBF Functional	Operational	09/83	05/85
169	Field Data and Operating Time	AUB	2	0	67,909	0	0	33,954.50 MTBMA	Operational	09/83	05/85
169	Field Data and Operating Time	AUF	10	0	4,191	0	10	419.10 MTBF Functional	Operational	05/76	12/77
169	Field Data and Operating Time	AUT	3	1	101,203	0	0	33,734.33 MTBF Functional	Operational	06/83	05/85
169	Field Data and Operating Time	AUT	4	0	101,203	0	0	25,300.75 MTBMA	Operational	06/83	05/85
169	Field Data and Operating Time	AUT	4	2	128,203	0	0	32,050.75 MTBF Functional	Operational	06/83	05/85
169	Field Data and Operating Time	AUT	6	0	128,203	0	0	21,367.16 MTBMA	Operational	06/83	05/85
170	Analysis & Prediction Report	AU	0	0	0	0	0	72,902.00 MTBF Series	Production	06/83	05/85
170	Field Data and Operating Time	AUT	5	3	101,203	0	0	20,240.60 MTBF Functional	Operational	06/83	05/85
170	Field Data and Operating Time	AUT	8	0	101,203	0	0	12,650.37 MTBMA	Operational	06/83	05/85
383	Contract Spec/Requirement	AUC	0	0	0	0	0	2,000.00 MTBF Series	Development		
383	Analysis & Prediction Report	AUC	0	0	0	0	0	7,500.00 MTBF Series	Development		
383	Demonstration Test Report	AUC	2	2	7,217	0	4	3,608.50 MTBF Series	Development	10/80	03/81
383	Field Data and Operating Time	AIC	379	117	356,310	0	0	940.13 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	496	0	356,310	0	0	718.36 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	50	9	70,893	0	0	1,417.86 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	59	0	70,893	0	0	1,201.57 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	1	3	2,304	0	0	2,304.00 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	4	0	2,304	0	0	576.00 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	0	1	10,368	0	0	14,961.03 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	1	0	10,368	0	0	10,368.00 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	28	21	60,921	0	0	2,175.75 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AIC	49	0	60,921	0	0	1,243.28 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AUB	95	43	136,257	0	0	1,434.28 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AUB	138	0	136,257	0	0	987.36 MTBMA	Operational	07/83	06/85
383	Field Data and Operating Time	AUB	72	25	70,915	0	0	984.93 MTBF Functional	Operational	07/83	06/85
383	Field Data and Operating Time	AUB	97	0	70,915	0	0	731.08 MTBMA	Operational	07/83	06/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Communications, Modulator/Demodulator

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
29	Contract Spec/Requirement	GF	0	0	0	0	0	5,000.00 MTBF Series	Development	08/73	10/73
29	Analysis & Prediction Report	GF	0	0	0	0	0	8,659.00 MTBF Series	Development	08/73	10/73
29	Demonstration Test Report	GF	0	0	4,536	0	0	6,545.45 MTBF Series	Development	10/73	11/73
29	Field Data and Operating Time	GF	18	0	197,532	0	10	10,974.00 MTBF Functional	Operational	04/73	04/77
29	Field Data and Operating Time	GF	50	0	279,072	0	17	5,581.44 MTBMA	Operational	07/85	08/85
29	Field Data and Operating Time	GF	72	0	279,072	0	17	3,876.00 MTBM	Operational	07/85	08/85
29	Field Data and Operating Time	GF	26	24	279,072	0	17	10,733.53 MTBF Functional	Operational	07/85	08/85
246	Contract Spec/Requirement	GB	0	0	0	0	0	1,923.00 MTBF Series	Development		
246	Analysis & Prediction Report	GB	0	0	0	0	0	1,976.00 MTBF Series	Development		
246	Demonstration Test Report	GB	2	0	4,327	0	0	2,163.50 MTBF Series	Development		
263	Contract Spec/Requirement	GF	0	0	0	0	0	5,000.00 MTBF Series	Development		
263	Analysis & Prediction Report	GF	0	0	0	0	0	7,732.00 MTBF Series	Development		
263	Demonstration Test Report	GF	0	0	4,450	0	0	6,421.35 MTBF Series	Development		

### Communications, Power Supply

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
171	Analysis & Prediction Report	AU	0	0	0	0	0	20,205.00 MTBF Series	Production		

### Communications, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
114	Contract Spec/Requirement	AUF	0	0	0	0	0	600.00 MTBF Series	Development		
114	Analysis & Prediction Report	AU	0	0	0	0	0	2,270.00 MTBF Series	Development		
114	Demonstration Test Report	AUF	9	15	5,069	3,620	0	563.22 MTBF Series	Development	11/72	11/73
114	Production Sample Verification	AUF	3	8	3,877	2,770	0	1,292.33 MTBF Series	Production	11/74	03/75
114	Production Sample Verification	AUF	5	8	3,430	2,450	0	686.00 MTBF Series	Production	01/76	08/76
114	Production Sample Verification	AUF	1	1	1,754	1,255	0	1,754.00 MTBF Series	Production	10/76	12/76
114	Simulated Operation	AUF	2	4	2,368	0	0	1,184.00 MTBF Series	Development	07/72	11/74
114	Simulated Operation	AUF	1	0	2,073	0	0	2,073.00 MTBF Series	Development	04/74	06/75
114	Field Data and Operating Time	AUF	1,497	740	178,344	0	0	119.13 MTBF Functional	Operational	05/83	04/85
114	Field Data and Operating Time	AUF	2,237	0	178,344	0	0	79.72 MTBMA	Operational	05/83	04/85

# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
110	Simulated Operation	AUF	0	0	908	0	0	1,310.24 MTBF Series	Development	07/72	11/74
110	Simulated Operation	AUF	0	0	1,124	0	0	1,621.93 MTBF Series	Development	04/74	06/75
110	Field Data and Operating Time	AUF	555	568	178,344	0	0	321.34 MTBF Functional	Operational	05/83	04/85
110	Field Data and Operating Time	AUF	1,123	0	178,344	0	0	158.81 MTBMA	Operational	05/83	04/85
110	Field Data and Operating Time	AUF	365	349	173,620	0	0	475.67 MTBF Functional	Operational	05/83	04/85
110	Field Data and Operating Time	AUF	714	0	173,620	0	0	243.16 MTBMA	Operational	05/83	04/85

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
111	Simulated Operation	AUF	5	0	887	0	0	177.40 MTBF Series	Development	07/72	11/74
111	Simulated Operation	AUF	5	0	1,101	0	0	220.20 MTBF Series	Development	04/74	06/75
111	Field Data and Operating Time	AUF	1,342	593	178,344	0	0	132.89 MTBF Functional	Operational	05/83	04/85
111	Field Data and Operating Time	AUF	1,935	0	178,344	0	0	92.16 MTBMA	Operational	05/83	04/85
111	Field Data and Operating Time	AUF	1,001	325	173,620	0	0	173.44 MTBF Functional	Operational	05/83	04/85
111	Field Data and Operating Time	AUF	1,326	0	173,620	0	0	130.93 MTBMA	Operational	05/83	04/85
112	Simulated Operation	AUF	3	0	3,767	0	0	1,255.66 MTBF Series	Development	07/72	11/74
112	Simulated Operation	AUF	2	0	2,465	0	0	1,232.50 MTBF Series	Development	04/74	06/75
112	Field Data and Operating Time	AUF	1,057	908	178,344	0	0	168.72 MTBF Functional	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	1,965	0	178,344	0	0	90.76 MTBMA	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	896	606	173,620	0	0	193.77 MTBF Functional	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	1,502	0	173,620	0	0	115.59 MTBMA	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	667	383	303,981	0	0	455.74 MTBF Functional	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	1,050	0	303,981	0	0	289.50 MTBMA	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	152	132	53,220	0	0	350.13 MTBF Functional	Operational	05/83	04/85
112	Field Data and Operating Time	AUF	284	0	53,220	0	0	187.39 MTBMA	Operational	05/83	04/85
115	Contract Spec/Requirement	AUF	0	0	0	0	0	450.00 MTBF Series	Production	07/71	09/74
115	Analysis & Prediction Report	AU	0	0	0	0	0	1,467.00 MTBF Series	Production	09/74	09/74
115	Analysis & Prediction Report	AU	0	0	0	0	0	1,734.00 MTBF Series	Production	12/74	06/75
115	Production Sample Verification	AUF	6	8	4,013	2,866	12	668.83 MTBF Series	Production	01/76	03/76
115	Production Sample Verification	AUF	2	3	2,174	1,555	0	1,087.00 MTBF Series	Production	11/76	11/76
115	Production Sample Verification	AUF	0	0	1,292	945	0	1,864.35 MTBF Series	Production	07/72	11/74
115	Simulated Operation	AUF	3	0	2,368	0	0	789.33 MTBF Series	Development	07/72	11/74
115	Simulated Operation	AUF	4	0	2,129	0	0	532.25 MTBF Series	Development	04/74	06/75

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	APP	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
115	Field Data and Operating Time	AUF	271	223	178,344	0	0	658.09 MTBF	Operational	05/83	04/85
115	Field Data and Operating Time	AUF	494	0	178,344	0	0	361.02 MTBMA	Operational	05/83	04/85
154	Analysis & Prediction Report	AU	0	0	0	0	0	1,705.00 MTBF	Series Development		
154	Analysis & Prediction Report	AU	0	0	0	0	0	1,619.00 MTBF	Series Development		
154	Analysis & Prediction Report	AU	0	0	0	0	0	1,946.00 MTBF	Series Development		
154	Demonstration Test Report	AU	21	48	4,031	2,919	0	191.95 MTBF	Series Development		
158	Analysis & Prediction Report	AU	0	0	0	0	0	2,696.00 MTBF	Series Development		
158	Analysis & Prediction Report	AU	0	0	0	0	0	2,857.00 MTBF	Series Development		
158	Demonstration Test Report	AU	2	0	133	0	0	66.50 MTBF	Series Development	09/73	10/73
158	Demonstration Test Report	AU	5	13	899	0	0	179.80 MTBF	Series Development	10/73	10/73
158	Demonstration Test Report	AU	3	27	3,083	0	0	1,027.66 MTBF	Series Development	10/73	12/73
158	Demonstration Test Report	AU	0	3	376	0	0	542.56 MTBF	Series Development		12/73
172	Analysis & Prediction Report	AU	0	0	0	0	0	1,970.00 MTBF	Series Development		
172	Demonstration Test Report	AU	12	6	4,028	1,342	0	335.66 MTBF	Series Development	10/73	12/73
173	Analysis & Prediction Report	AU	0	0	0	0	0	2,690.00 MTBF	Series Production		
173	Production Sample Verification	AU	0	0	162	81	0	233.76 MTBF	Series Production	07/75	07/75
173	Production Sample Verification	AU	5	0	1,271	636	20	254.20 MTBF	Series Production	08/75	08/75
173	Production Sample Verification	AU	6	0	1,121	560	17	186.83 MTBF	Series Production	09/75	09/75
173	Production Sample Verification	AU	3	0	1,146	573	19	382.00 MTBF	Series Production	10/75	10/75
173	Production Sample Verification	AU	10	1	2,600	1,300	42	260.00 MTBF	Series Production	11/75	11/75
173	Production Sample Verification	AU	9	1	2,451	1,225	33	272.33 MTBF	Series Production	12/75	12/75
173	Production Sample Verification	AU	11	2	2,746	1,373	43	249.63 MTBF	Series Production	01/76	01/76
173	Production Sample Verification	AU	6	2	3,418	1,709	56	569.66 MTBF	Series Production	02/76	02/76
173	Production Sample Verification	AU	30	3	5,742	2,871	85	191.40 MTBF	Series Production	03/76	03/76
173	Production Sample Verification	AU	8	0	7,394	3,697	125	924.25 MTBF	Series Production	04/76	04/76
173	Production Sample Verification	AU	22	0	8,518	4,257	139	387.18 MTBF	Series Production	05/76	05/76
173	Production Sample Verification	AU	62	10	12,641	6,320	202	203.88 MTBF	Series Production	06/76	06/76
173	Production Sample Verification	AU	27	4	7,737	3,869	115	286.55 MTBF	Series Production	07/76	07/76
173	Production Sample Verification	AU	70	3	15,804	7,902	261	225.77 MTBF	Series Production	08/76	08/76
173	Production Sample Verification	AU	49	3	14,981	7,491	252	305.73 MTBF	Series Production	09/76	09/76
173	Production Sample Verification	AU	60	1	10,961	5,480	180	182.68 MTBF	Series Production	10/76	10/76
173	Production Sample Verification	AU	16	1	9,818	4,909	177	613.62 MTBF	Series Production	11/76	11/76
173	Production Sample Verification	AU	37	1	9,565	4,782	168	258.51 MTBF	Series Production	12/76	12/76
173	Production Sample Verification	AU	20	1	7,041	3,521	123	352.05 MTBF	Series Production	01/77	01/77
173	Production Sample Verification	AU	31	1	12,941	6,470	233	417.45 MTBF	Series Production	02/77	02/77

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
173	Production Sample Verification	AU	34	3	7,433	3,716	133	218.61 MTBF Series	Production	03/77	03/77
173	Production Sample Verification	AU	8	0	375	188	0	46.87 MTBF Series	Production	04/77	04/77
173	Production Sample Verification	AU	28	0	6,292	3,146	225	224.71 MTBF Series	Production	05/77	05/77
173	Production Sample Verification	AU	31	0	5,906	2,953	223	190.51 MTBF Series	Production	06/77	06/77
173	Production Sample Verification	AU	10	0	2,652	1,326	102	265.20 MTBF Series	Production	07/77	07/77
173	Production Sample Verification	AU	22	0	5,900	2,950	206	268.18 MTBF Series	Production	08/77	08/77
173	Production Sample Verification	AU	16	0	6,838	3,419	250	427.37 MTBF Series	Production	09/77	09/77
173	Production Sample Verification	AU	15	0	5,286	2,643	202	352.40 MTBF Series	Production	10/77	10/77
173	Production Sample Verification	AU	19	0	8,537	4,268	302	449.31 MTBF Series	Production	11/77	11/77
173	Production Sample Verification	AU	24	0	5,849	2,925	205	243.70 MTBF Series	Production	12/77	12/77
173	Production Sample Verification	AU	14	0	7,118	3,559	224	508.42 MTBF Series	Production	01/78	01/78
173	Production Sample Verification	AU	26	0	6,882	3,441	244	264.69 MTBF Series	Production	02/78	02/78
173	Production Sample Verification	AU	8	0	3,687	1,843	146	460.87 MTBF Series	Production	03/77	03/77
173	Production Sample Verification	AU	25	0	7,124	3,562	267	284.96 MTBF Series	Production	04/77	04/77
173	Field Data and Operating Time	AUB	11	4	131,750	0	0	11,977.27 MTBF Functional	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	15	0	131,750	0	0	8,783.33 MTBMA	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	2	0	131,750	0	0	65,875.00 MTBF Functional	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	2	0	131,750	0	0	65,875.00 MTBMA	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	0	0	0	0	0	0.00 MTBF Functional	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	0	0	0	0	0	0.00 MTBMA	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	1	0	67,909	0	0	67,909.00 MTBF Functional	Operational	09/83	08/85
173	Field Data and Operating Time	AUB	1	0	67,909	0	0	67,909.00 MTBMA	Operational	09/83	08/85
173	Field Data and Operating Time	AUC	2	1	24,985	0	20	12,492.50 MTBF Functional	Operational	05/76	12/77
173	Field Data and Operating Time	AUC	0	0	17,898	0	20	25,826.83 MTBF Functional	Operational	05/76	12/77
173	Field Data and Operating Time	AUF	3	0	4,191	0	10	1,397.00 MTBF Functional	Operational	05/76	12/77
173	Field Data and Operating Time	AUF	1	0	2,431	0	10	2,431.00 MTBF Functional	Operational	05/76	12/77
173	Field Data and Operating Time	AUF	354	0	356,688	0	0	1,007.59 MTBMA	Operational	05/83	04/85
173	Field Data and Operating Time	AUF	203	151	356,688	0	0	1,757.08 MTBF Functional	Operational	05/83	04/85
173	Field Data and Operating Time	AUF	618	438	356,688	0	0	577.16 MTBF Functional	Operational	05/83	04/85
173	Field Data and Operating Time	AUF	1,056	0	356,688	0	0	337.77 MTBMA	Operational	05/83	04/85
173	Field Data and Operating Time	AUF	80	72	24,207	0	0	302.58 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	152	0	24,207	0	0	159.25 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	86	46	43,935	0	0	510.87 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	132	0	43,935	0	0	332.84 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	202	112	39,991	0	0	197.97 MTBF Functional	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
173	Field Data and Operating Time	AUF	314	0	39,991	0	0	127.35 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	34	21	38,558	0	0	1,134.05 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	55	0	38,558	0	0	701.05 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	287	150	39,513	0	0	137.67 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	437	0	39,513	0	0	90.41 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	25	27	13,740	0	0	549.60 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	52	0	13,740	0	0	264.23 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	211	152	24,207	0	0	114.72 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	363	0	24,207	0	0	66.68 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	4	1	24,207	0	0	6,051.75 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	5	0	24,207	0	0	4,841.40 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	2	1	43,935	0	0	21,967.50 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	3	0	43,935	0	0	14,645.00 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	2	1	39,991	0	0	19,995.50 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	3	0	39,991	0	0	13,330.33 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	3	2	38,558	0	0	12,852.66 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	5	0	38,558	0	0	7,711.60 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUF	1	0	13,740	0	0	13,740.00 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUT	304	59	101,203	0	0	332.90 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUT	363	0	101,203	0	0	278.79 MTBMA	Operational	06/83	05/85
173	Field Data and Operating Time	AUT	184	40	128,203	0	0	696.75 MTBF Functional	Operational	06/83	05/85
173	Field Data and Operating Time	AUT	224	0	128,203	0	0	572.33 MTBMA	Operational	06/83	05/85
174	Analysis & Prediction Report	AI	0	0	0	0	0	2,007.00 MTBF Series	Production	12/75	12/75
174	Production Sample Verification	AI	4	1	858	429	12	214.50 MTBF Series	Production	01/76	01/76
174	Production Sample Verification	AI	2	0	453	226	0	226.50 MTBF Series	Production	02/76	02/76
174	Production Sample Verification	AI	1	2	271	135	0	271.00 MTBF Series	Production	03/76	03/76
174	Production Sample Verification	AI	5	0	615	307	10	123.00 MTBF Series	Production	04/76	04/76
174	Production Sample Verification	AI	3	0	950	475	17	316.66 MTBF Series	Production	05/76	05/76
174	Production Sample Verification	AI	6	1	633	317	0	105.50 MTBF Series	Production	06/76	06/76
174	Production Sample Verification	AI	6	0	1,890	945	31	315.00 MTBF Series	Production	07/76	07/76
174	Production Sample Verification	AI	10	4	1,378	689	23	137.80 MTBF Series	Production	08/76	08/76
174	Production Sample Verification	AI	14	1	1,928	964	33	137.71 MTBF Series	Production	09/76	09/76
174	Production Sample Verification	AI	9	8	2,417	1,209	41	268.55 MTBF Series	Production	10/76	10/76
174	Production Sample Verification	AI	15	2	1,466	733	23	97.73 MTBF Series	Production	11/76	11/76
174	Production Sample Verification	AI	3	0	1,805	902	30	601.66 MTBF Series	Production	12/76	12/76

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
174	Production Sample Verification	AI	6	0	1,616	808	29	269.33 MTBF Series	Production	12/76	12/76
174	Production Sample Verification	AI	7	0	1,813	907	36	259.00 MTBF Series	Production	01/77	01/77
174	Production Sample Verification	AI	7	0	1,977	989	36	282.42 MTBF Series	Production	02/77	02/77
174	Production Sample Verification	AI	6	0	2,504	1,252	19	417.33 MTBF Series	Production	03/77	03/77
174	Production Sample Verification	AI	9	0	1,656	828	64	184.00 MTBF Series	Production	04/77	04/77
174	Production Sample Verification	AI	7	0	1,771	885	59	253.00 MTBF Series	Production	05/77	05/77
174	Production Sample Verification	AI	6	1	641	320	21	106.83 MTBF Series	Production	06/77	06/77
174	Production Sample Verification	AI	4	0	873	436	33	218.25 MTBF Series	Production	07/77	07/77
174	Production Sample Verification	AI	10	1	2,278	1,139	74	227.80 MTBF Series	Production	08/77	08/77
174	Production Sample Verification	AI	3	0	2,005	1,003	75	668.33 MTBF Series	Production	09/77	09/77
174	Production Sample Verification	AI	4	0	2,007	1,003	75	501.75 MTBF Series	Production	10/77	10/77
174	Production Sample Verification	AI	3	0	1,663	831	57	554.33 MTBF Series	Production	11/77	11/77
174	Production Sample Verification	AI	4	0	930	465	33	232.50 MTBF Series	Production	12/77	12/77
174	Production Sample Verification	AI	5	0	2,129	1,065	74	425.80 MTBF Series	Production	01/78	01/78
174	Production Sample Verification	AI	6	0	1,601	801	56	266.83 MTBF Series	Production	02/78	02/78
174	Production Sample Verification	AI	0	0	278	139	11	401.15 MTBF Series	Production	03/77	03/77
175	Analysis & Prediction Report	AI	0	0	0	0	0	2,008.00 MTBF Series	Production	08/75	08/75
175	Production Sample Verification	AI	0	0	328	164	0	473.30 MTBF Series	Production	09/75	09/75
175	Production Sample Verification	AI	11	2	2,140	1,070	33	194.54 MTBF Series	Production	10/75	10/75
175	Production Sample Verification	AI	17	7	3,172	1,586	51	186.58 MTBF Series	Production	11/75	11/75
175	Production Sample Verification	AI	10	3	2,550	1,275	39	255.00 MTBF Series	Production	12/75	12/75
175	Production Sample Verification	AI	26	7	2,295	1,147	31	88.26 MTBF Series	Production	01/76	01/76
175	Production Sample Verification	AI	6	0	752	376	10	125.33 MTBF Series	Production	02/76	02/76
175	Production Sample Verification	AI	5	0	1,839	920	29	367.80 MTBF Series	Production	03/76	03/76
175	Production Sample Verification	AI	16	3	5,705	2,852	78	356.56 MTBF Series	Production	04/76	04/76
175	Production Sample Verification	AI	21	7	5,676	2,838	87	270.28 MTBF Series	Production	05/76	05/76
175	Production Sample Verification	AI	10	0	2,572	1,286	43	257.20 MTBF Series	Production	06/76	06/76
175	Production Sample Verification	AI	18	5	5,422	2,711	90	301.22 MTBF Series	Production	07/76	07/76
175	Production Sample Verification	AI	8	3	4,772	2,386	76	596.50 MTBF Series	Production	08/76	08/76
175	Production Sample Verification	AI	37	5	5,413	2,706	86	146.29 MTBF Series	Production	09/76	09/76
175	Production Sample Verification	AI	17	1	6,638	3,319	113	390.47 MTBF Series	Production	10/76	10/76
175	Production Sample Verification	AI	31	0	4,871	2,435	72	157.12 MTBF Series	Production	11/76	11/76
175	Production Sample Verification	AI	32	2	9,605	4,802	169	300.15 MTBF Series	Production	12/76	12/76
175	Production Sample Verification	AI	29	0	7,367	3,683	132	254.03 MTBF Series	Production	01/77	01/77
175	Production Sample Verification	AI	29	1	8,492	4,246	148	292.82 MTBF Series	Production	01/77	01/77

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
175	Production Sample Verification	AI	45	3	9,605	4,802	159	213.44 MTBF Series	Production	02/77	02/77
175	Production Sample Verification	AI	28	1	5,913	2,956	108	211.17 MTBF Series	Production	03/77	03/77
175	Production Sample Verification	AI	11	0	2,522	1,261	98	229.27 MTBF Series	Production	04/77	04/77
175	Production Sample Verification	AI	14	0	3,576	1,788	128	255.42 MTBF Series	Production	05/77	05/77
175	Production Sample Verification	AI	20	0	4,804	2,402	180	240.20 MTBF Series	Production	06/77	06/77
175	Production Sample Verification	AI	7	0	1,610	805	61	230.00 MTBF Series	Production	07/77	07/77
175	Production Sample Verification	AI	14	0	4,928	2,464	171	352.00 MTBF Series	Production	08/77	08/77
175	Production Sample Verification	AI	15	0	3,944	1,472	145	262.93 MTBF Series	Production	09/77	09/77
175	Production Sample Verification	AI	21	0	5,012	2,506	185	238.66 MTBF Series	Production	10/77	10/77
175	Production Sample Verification	AI	17	0	3,719	1,859	132	218.76 MTBF Series	Production	11/77	11/77
175	Production Sample Verification	AI	12	0	3,684	1,842	131	307.00 MTBF Series	Production	12/77	12/77
175	Production Sample Verification	AI	8	0	3,292	1,646	94	411.50 MTBF Series	Production	01/78	01/78
175	Production Sample Verification	AI	17	0	4,624	2,312	155	272.00 MTBF Series	Production	02/78	02/78
175	Production Sample Verification	AI	6	0	1,890	945	74	315.00 MTBF Series	Production	03/77	03/77
175	Field Data and Operating Time	AIA	905	626	450,653	0	0	497.95 MTBF Functional	Operational	06/83	05/85
175	Field Data and Operating Time	AIA	1,531	0	450,653	0	0	294.35 MTBMA	Operational	06/83	05/85
175	Field Data and Operating Time	AIF	1,517	1,286	303,981	0	0	200.38 MTBF Functional	Operational	05/83	04/85
175	Field Data and Operating Time	AIF	2,803	0	303,981	0	0	108.44 MTBF Functional	Operational	05/83	04/85
175	Field Data and Operating Time	AIF	295	182	53,220	0	0	180.40 MTBF Functional	Operational	05/83	04/85
175	Field Data and Operating Time	AIF	477	0	53,220	0	0	111.57 MTBMA	Operational	05/83	04/85
175	Field Data and Operating Time	AIT	23	1	10,227	0	15	444.65 MTBF Functional	Operational	05/76	12/77
175	Field Data and Operating Time	AIT	3	0	6,012	0	15	2,004.00 MTBF Functional	Operational	05/76	12/77
175	Field Data and Operating Time	AIT	11	0	8,468	0	15	769.81 MTBF Functional	Operational	05/76	12/77
175	Field Data and Operating Time	AIT	10	1	5,957	0	15	595.70 MTBF Functional	Operational	05/76	12/77
175	Field Data and Operating Time	AIT	1,604	332	681,673	0	0	424.98 MTBF Functional	Operational	08/83	07/85
175	Field Data and Operating Time	AIT	1,936	0	681,673	0	0	352.10 MTBMA	Operational	08/83	07/85
175	Field Data and Operating Time	AIT	511	140	62,765	0	0	122.82 MTBF Functional	Operational	08/83	07/85
175	Field Data and Operating Time	AIT	651	0	62,765	0	0	96.41 MTBMA	Operational	08/83	07/85
199	Analysis & Prediction Report	GF	0	0	0	0	0	1,787.00 MTBF Series	Development		
199	Analysis & Prediction Report	GF	0	0	0	0	0	2,375.00 MTBF Series	Development		
199	Demonstration Test Report	GF	2	7	2,980	0	0	1,490.00 MTBF Series	Development		
199	Production Sample Verification	GF	3	4	14,554	0	25	4,851.33 MTBF Series	Production	12/74	02/75
199	Production Sample Verification	GF	1	1	4,997	0	25	4,997.00 MTBF Series	Production	07/75	07/75
199	Production Sample Verification	GF	0	2	2,752	0	10	3,971.13 MTBF Series	Production	08/75	09/75
199	Production Sample Verification	GF	2	0	6,277	0	20	3,138.50 MTBF Series	Production	09/75	10/75
199	Production Sample Verification	GF							Production	11/75	11/75



## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
199	Production Sample Verification	GF	0	0	2,764	0	10	3,988.45 MTBF Series	Production	12/75	12/75
199	Production Sample Verification	GF	0	0	2,927	0	25	4,223.66 MTBF Series	Production	01/76	01/76
199	Production Sample Verification	GF	0	1	2,774	0	25	4,002.88 MTBF Series	Production	02/76	02/76
199	Production Sample Verification	GF	3	3	6,334	0	40	2,111.33 MTBF Series	Production	03/76	04/76
199	Production Sample Verification	GF	0	1	2,794	0	24	4,031.74 MTBF Series	Production	04/76	04/76
199	Production Sample Verification	GF	3	0	6,329	0	25	2,109.66 MTBF Series	Production	05/76	05/76
199	Production Sample Verification	GF	0	1	2,768	0	25	3,994.22 MTBF Series	Production	07/76	07/76
199	Simulated Operation	GF	4	0	62,941	0	10	15,735.25 MTBF Series	Development	09/75	06/76
199	Simulated Operation	GF	5	0	60,177	0	10	12,035.40 MTBF Series	Development	10/75	06/76
199	Simulated Operation	GF	1	0	49,853	0	10	49,853.00 MTBF Series	Development	11/75	06/76
199	Field Data and Operating Time	GF	33	0	64,260	0	150	1,947.27 MTBMA	Operational	01/78	06/78
199	Field Data and Operating Time	GF	27	0	364,260	0	150	13,491.11 MTBMA	Operational	07/78	12/78
199	Field Data and Operating Time	GF	19	0	363,180	0	142	19,114.73 MTBMA	Operational	01/79	06/79
199	Field Data and Operating Time	GF	34	0	339,060	0	90	9,972.35 MTBMA	Operational	07/79	12/79
199	Field Data and Operating Time	GF	24	0	339,060	0	90	14,127.50 MTBMA	Operational	01/80	06/80
199	Field Data and Operating Time	GF	84	0	642,510	0	119	7,648.92 MTBMA	Operational	09/81	07/82
199	Field Data and Operating Time	GF	2,592	0	29,236,500	0	1,670	11,279.51 MTBMA	Operational	07/83	06/85
199	Field Data and Operating Time	GF	1,959	0	29,236,500	0	1,670	14,924.19 MTBMA	Operational	07/83	06/85
199	Field Data and Operating Time	GF	1,223	736	29,236,500	0	1,670	23,905.56 MTBF Functional	Operational	07/83	06/85
301	Simulated Operation	AIA	3	4	1,325	0	0	441.66 MTBF Series	Development	03/75	06/76
301	Field Data and Operating Time	AIA	976	499	450,653	0	0	461.73 MTBF Functional	Operational	06/83	05/85
301	Field Data and Operating Time	AIA	1,475	0	450,653	0	0	305.52 MTBMA	Operational	06/83	05/85
381	Analysis & Prediction Report	AUC	0	0	0	0	0	2,100.00 MTBF Series	Development		
381	Field Data and Operating Time	AIC	445	218	356,310	0	0	800.69 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	663	0	356,310	0	0	537.42 MTBMA	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	45	10	70,893	0	0	1,575.40 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	55	0	70,893	0	0	1,288.96 MTBMA	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	2	2	2,305	0	0	1,152.50 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	4	0	2,305	0	0	576.25 MTBMA	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	2	0	10,368	0	0	5,184.00 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	2	0	10,368	0	0	5,184.00 MTBMA	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	33	38	60,921	0	0	1,846.09 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AIC	71	0	60,921	0	0	858.04 MTBMA	Operational	07/83	06/85
381	Field Data and Operating Time	AUB	254	128	136,257	0	0	536.44 MTBF Functional	Operational	07/83	06/85
381	Field Data and Operating Time	AUB	382	0	136,257	0	0	356.69 MTBMA	Operational	07/83	06/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Communications, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
381	Field Data and Operating Time	AUB	144	106	70,915	0	0	492.46 MTBF	Functional	07/83	06/85
381	Field Data and Operating Time	AUB	250	0	70,915	0	0	283.66 MTBMA	Operational	07/83	06/85

Computer,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
2	Analysis & Prediction Report	GB	0	0	0	0	0	385.00 MTBF	Functional	01/74	08/76
2	Analysis & Prediction Report	GB	0	0	0	0	0	399.00 MTBF	Functional	02/76	12/76
2	Demonstration Test Report	GB	6	0	319	0	0	53.16 MTBF	Functional	12/76	07/85
2	Field Data and Operating Time	GB	12	0	17,520	0	0	1,460.00 MTBF	Functional	08/83	07/85
2	Field Data and Operating Time	GB	12	0	17,520	0	0	1,460.00 MTBMA	Operational	08/83	07/85
2	Field Data and Operating Time	GB	13	0	17,520	0	0	1,347.69 MTBM	Operational	08/83	07/85
43	Contract Spec/Requirement	AUF	0	0	0	0	0	1,500.00 MTBF	Series	Development	02/73
43	Analysis & Prediction Report	AU	0	0	0	0	0	2,705.00 MTBF	Series	Development	02/73
43	Demonstration Test Report	AUF	7	10	9,536	7,417	0	1,362.28 MTBF	Series	Development	11/74
43	Production Sample Verification	AUF	4	6	4,973	3,867	0	1,243.25 MTBF	Series	Production	06/75
43	Simulated Operation	AUF	4	0	10,656	0	10	2,664.00 MTBF	Series	Development	07/72
43	Simulated Operation	AUF	2	9	5,282	0	0	2,641.00 MTBF	Series	Development	04/74
43	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
43	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
43	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
43	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
43	Field Data and Operating Time	AUF	1,594	0	356,688	0	0	223.76 MTBMA	Operational	05/83	04/85
43	Field Data and Operating Time	AUF	480	1,114	356,688	0	0	743.10 MTBF	Functional	05/83	04/85
43	Field Data and Operating Time	AUF	526	844	347,240	0	0	660.15 MTBF	Functional	05/83	04/85
43	Field Data and Operating Time	AUF	1,370	0	347,240	0	0	253.45 MTBMA	Operational	05/83	04/85
116	Demonstration Test Report	AUF	7	11	5,665	3,399	0	809.28 MTBF	Series	Development	01/73
116	Simulated Operation	AUF	1	14	2,677	0	0	2,677.00 MTBF	Series	Development	04/74
116	Simulated Operation	AUF	2	0	5,382	0	0	2,691.00 MTBF	Series	Development	07/72
116	Field Data and Operating Time	AUF	19	0	18,044	0	161	949.68 MTBM	Operational	01/77	06/77
116	Field Data and Operating Time	AUF	33	0	24,470	0	203	741.51 MTBM	Operational	07/77	12/77
116	Field Data and Operating Time	AUF	1	0	30,705	0	269	30,705.00 MTBM	Operational	01/78	06/78
116	Field Data and Operating Time	AUF	4	0	37,453	0	296	9,363.25 MTBM	Operational	07/78	12/78
116	Field Data and Operating Time	AUF	185	364	178,344	0	0	964.02 MTBF	Functional	05/83	04/85

# BERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Computer,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
116	Field Data and Operating Time	AUF	549	0	178,344	0	0	324.85 MTBMA	Operational	05/83	04/85
116	Field Data and Operating Time	AUF	460	672	173,620	0	0	377.43 MTBF Functional	Operational	05/83	04/85
116	Field Data and Operating Time	AUF	1,132	0	173,620	0	0	153.37 MTBMA	Operational	05/83	04/85
230	Contract Spec/Requirement	GB	0	0	0	0	0	545.00 MTBF Series	Development		
230	Analysis & Prediction Report	GB	0	0	0	0	0	537.00 MTBF Series	Development		
230	Analysis & Prediction Report	GB	0	0	0	0	0	579.00 MTBF Functional	Development		
230	Demonstration Test Report	GB	0	0	1,198	0	0	1,728.71 MTBF Functional	Development		
230	Demonstration Test Report	GB	0	0	1,195	0	0	1,724.38 MTBF Functional	Development		
230	Demonstration Test Report	GB	1	8	1,656	0	0	1,656.00 MTBF Functional	Development	12/70	02/71
230	Demonstration Test Report	GB	1	1	1,637	0	0	1,637.00 MTBF Functional	Development	12/70	02/71
230	Field Data and Operating Time	GB	245	79	169,687	0	31	692.60 MTBF Functional	Operational	01/77	12/77
230	Field Data and Operating Time	GB	324	0	169,687	0	31	523.72 MTBMA	Operational	01/77	12/77
230	Field Data and Operating Time	GB	344	0	169,687	0	31	493.27 MTBM	Operational	01/77	12/77
230	Field Data and Operating Time	GB	20	0	169,687	0	31	8,484.35 MTBPM	Operational	01/77	12/77
230	Field Data and Operating Time	GB	319	0	224,840	0	14	704.82 MTBMA	Operational	09/83	08/85
230	Field Data and Operating Time	GB	138	181	224,840	0	14	1,629.27 MTBF Functional	Operational	09/83	08/85
244	Contract Spec/Requirement	NSS	0	0	0	0	0	2,000.00 MTBF Series	Development	01/76	09/77
244	Analysis & Prediction Report	NSS	0	0	0	0	0	2,066.00 MTBF Series	Development		
244	Analysis & Prediction Report	NSS	0	0	0	0	0	304.00 MTBF Series	Development		
244	Demonstration Test Report	NSS	8	0	14,305	0	0	1,788.12 MTBF Series	Development	12/75	06/76
244	Field Data and Operating Time	NS	0	1	7,647	0	0	11,034.63 MTBF Functional	Operational	03/79	09/79
244	Field Data and Operating Time	NS	1	0	7,647	0	0	7,647.00 MTBMA	Operational	03/79	09/79
244	Field Data and Operating Time	NS	18	0	29,952	0	11	1,664.00 MTBF Functional	Operational	06/76	03/77
244	Field Data and Operating Time	NSB	2	0	4,475	0	0	2,237.50 MTBF Functional	Operational	06/76	03/77
261	Contract Spec/Requirement	GB	0	0	0	0	0	8,650.00 MTBF Functional	Development		
261	Allocation/Apportion	GB	0	0	0	0	0	84.00 MTBF Series	Development		
261	Analysis & Prediction Report	GB	0	0	0	0	0	62.50 MTBF Series	Development		
261	Analysis & Prediction Report	GB	0	0	0	0	0	15,944.00 MTBF Functional	Development		
261	Field Data and Operating Time	GB	2,741	0	35,040	0	2	12.78 MTBMA	Operational	08/83	07/85
261	Field Data and Operating Time	GB	1,161	1,580	35,040	0	2	30.18 MTBF Functional	Operational	08/83	07/85
303	Analysis & Prediction Report	GBC	0	0	0	0	0	370.00 MTBF Series	Operational		
303	Field Data and Operating Time	GBC	26	0	17,370	0	0	668.07 MTBMA	Operational	08/73	10/75
341	Contract Spec/Requirement	AUF	0	0	0	0	0	720.00 MTBF Series	Development		
341	Analysis & Prediction Report	AUF	0	0	0	0	0	2,350.00 MTBF Series	Development		
341	Demonstration Test Report	AUF	0	0	0	0	0	504.00 MTBF Series	Development		

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Computer,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
341	Field Data and Operating Time	AUF	712	2,141	303,981	0	0	426.93 MTBF Functional	Operational	05/83	04/85
341	Field Data and Operating Time	AUF	2,853	0	303,981	0	0	106.54 MTBMA	Operational	05/83	04/85
341	Field Data and Operating Time	AUF	123	315	53,220	0	0	432.68 MTBF Functional	Operational	05/83	04/85
341	Field Data and Operating Time	AUF	438	0	53,220	0	0	121.50 MTBMA	Operational	05/83	04/85
342	Contract Spec/Requirement	AIF	0	0	0	0	0	1,350.00 MTBF Series	Development		
342	Analysis & Prediction Report	AIF	0	0	0	0	0	3,961.00 MTBF Series	Development		
342	Analysis & Prediction Report	AIF	0	0	0	0	0	2,757.00 MTBF Series	Development		
342	Analysis & Prediction Report	AIF	0	0	0	0	0	788.00 MTBF Series	Development		
342	Field Data and Operating Time	AIF	397	450	303,981	0	0	765.69 MTBF Functional	Operational	05/83	04/85
342	Field Data and Operating Time	AIF	847	0	303,981	0	0	358.89 MTBMA	Operational	05/83	04/85
342	Field Data and Operating Time	AIF	71	101	53,220	0	0	749.57 MTBF Functional	Operational	05/83	04/85
342	Field Data and Operating Time	AIF	172	0	53,220	0	0	309.41 MTBMA	Operational	05/83	04/85

Computer, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
35	Contract Spec/Requirement	AUF	0	0	0	0	0	1,345.00 MTBF Series	Development	11/74	11/74
35	Demonstration Test Report	AUF	3	57	3,002	1,365	0	1,000.66 MTBF Series	Development	11/72	12/73
35	Demonstration Test Report	AUF	0	21	1,277	580	0	1,842.71 MTBF Series	Development	04/74	06/74
35	Simulated Operation	AUF	4	0	4,306	0	0	1,076.50 MTBF Series	Development	07/72	11/74
35	Simulated Operation	AUF	0	73	2,726	0	0	3,933.62 MTBF Series	Development	04/74	06/75
35	Field Data and Operating Time	AUF	88	0	18,044	0	161	205.04 MTBM	Operational	01/77	06/77
35	Field Data and Operating Time	AUF	134	0	24,470	0	203	182.61 MTBM	Operational	07/77	12/77
35	Field Data and Operating Time	AUF	4	0	30,705	0	269	7,676.25 MTBM	Operational	01/78	06/78
35	Field Data and Operating Time	AUF	6	0	37,453	0	296	6,242.16 MTBM	Operational	07/78	12/78
35	Field Data and Operating Time	AUF	469	1,678	178,344	0	0	380.26 MTBF Functional	Operational	05/83	04/85
35	Field Data and Operating Time	AUF	2,147	0	178,344	0	0	83.06 MTBMA	Operational	05/83	04/85
35	Field Data and Operating Time	AUF	475	1,106	173,620	0	0	365.51 MTBF Functional	Operational	05/83	04/85
35	Field Data and Operating Time	AUF	1,581	0	173,620	0	0	109.81 MTBMA	Operational	05/83	04/85
257	Allocation/Apportion	GF	0	0	0	0	0	489.00 MTBF Functional	Development		
257	Analysis & Prediction Report	GF	0	0	0	0	0	119.00 MTBF Series	Development		
257	Analysis & Prediction Report	GF	0	0	0	0	0	559.00 MTBF Functional	Development		
257	Field Data and Operating Time	GF	879	0	35,040	0	2	39.86 MTBMA	Operational	08/83	07/85
257	Field Data and Operating Time	GF	352	527	35,040	0	2	99.54 MTBF Functional	Operational	08/83	07/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Computer, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
262	Analysis & Prediction Report	GB	0	0	0	0	0	2,083.00 MTBF Series	Development	08/83	07/85
262	Field Data and Operating Time	GB	92	0	35,040	0	2	380.86 MTBMA	Operational	08/83	07/85
262	Field Data and Operating Time	GB	27	65	35,040	0	2	1,297.77 MTBF Functional	Operational	08/83	07/85
265	Allocation/Apportion	GB	0	0	0	0	0	10,924.00 MTBF Functional	Development		
265	Analysis & Prediction Report	GB	0	0	0	0	0	92.00 MTBF Series	Development		
265	Analysis & Prediction Report	GB	0	0	0	0	0	42,927.00 MTBF Functional	Development		
265	Field Data and Operating Time	GB	1,709	0	35,040	0	2	20.50 MTBMA	Operational	08/83	07/85
265	Field Data and Operating Time	GB	791	918	35,040	0	2	44.29 MTBF Functional	Operational	08/83	07/85
306	Field Data and Operating Time	GB	2	0	17,370	0	0	8,685.00 MTBMA	Operational	08/73	10/75

### Computer, I/O Device

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
1	Analysis & Prediction Report	GB	0	0	0	0	0	546.00 MTBF Series	Development	08/83	07/85
1	Field Data and Operating Time	GB	2	0	17,520	0	0	8,760.00 MTBF Functional	Operational	08/83	07/85
1	Field Data and Operating Time	GB	2	0	17,520	0	0	8,760.00 MTBMA	Operational	08/83	07/85
1	Field Data and Operating Time	GB	2	0	17,520	0	0	8,760.00 MTBM	Operational	08/83	07/85
308	Field Data and Operating Time	GB	1	0	17,370	0	0	17,370.00 MTBMA	Operational	08/73	10/75

### Computer, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
264	Allocation/Apportion	GB	0	0	0	0	0	42,735.00 MTBF Functional	Development		
264	Analysis & Prediction Report	GB	0	0	0	0	0	216.00 MTBF Series	Development		
264	Analysis & Prediction Report	GB	0	0	0	0	0	134,770.00 MTBF Functional	Development		
264	Field Data and Operating Time	GB	342	596	35,040	0	2	102.45 MTBF Functional	Operational	08/83	07/85
264	Field Data and Operating Time	GB	938	0	35,040	0	2	37.35 MTBMA	Operational	08/83	07/85
305	Field Data and Operating Time	GB	1	0	17,370	0	0	17,370.00 MTBMA	Operational	08/73	10/75

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Computer, Memory

EQUIP	APP	DATA SOURCE	ENV	FAILURES	RELEVANT	NON-REL	OPERATE	TEST HOURS	NON-OP	SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE
ID													START END
304	Field Data and Operating Time	GB	11	0	0	69,480	0	0	0	6,316.36	MTBMA	Operational	08/73 10/75

Computer, Signal/Data

EQUIP	APP	DATA SOURCE	ENV	FAILURES	RELEVANT	NON-REL	OPERATE	TEST HOURS	NON-OP	SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE
ID													START END
4	Analysis & Prediction Report	GB	0	0	0	3,542	0	0	0	202.00	MTBF Series	Development	02/76 08/76
4	Field Data and Operating Time	GB	4	17	63	6,044	0	0	0	885.50	MTBF Functional	Operational	01/74 10/74
4	Field Data and Operating Time	GB	21	63	20	6,044	0	0	0	287.80	MTBF Functional	Operational	01/74 10/74
4	Field Data and Operating Time	GB	65	20	0	17,520	0	0	0	92.98	MTBF Functional	Operational	08/83 07/85
4	Field Data and Operating Time	GB	10	0	0	17,520	0	0	0	1,752.00	MTBMA	Operational	08/83 07/85
4	Field Data and Operating Time	GB	10	0	0	17,520	0	0	0	1,592.72	MTBM	Operational	08/83 07/85
4	Field Data and Operating Time	GB	11	0	0	17,370	0	0	0	5,790.00	MTBMA	Operational	08/73 10/75
307	Field Data and Operating Time	GB	3	0	0	17,370	0	0	0	2,171.25	MTBMA	Operational	08/73 10/75
309	Field Data and Operating Time	GB	8	0	0	17,370	0	0	0				

Controls/Displays,

EQUIP	APP	DATA SOURCE	ENV	FAILURES	RELEVANT	NON-REL	OPERATE	TEST HOURS	NON-OP	SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE
ID													START END
132	Contract Spec/Requirement	AIF	0	0	0	1,428	0	0	0	225.00	MTBF Series	Development	08/75 03/76
132	Demonstration Test Report	AIF	6	30	0	2,623	0	0	0	238.00	MTBF Series	Development	07/72 11/74
132	Simulated Operation	AIF	28	0	0	1,929	0	0	0	93.67	MTBF Series	Development	04/74 06/75
132	Simulated Operation	AIF	14	0	0	18,044	0	0	0	137.78	MTBF Series	Development	01/77 06/77
132	Field Data and Operating Time	AIF	185	0	0	24,470	0	0	0	97.53	MTBM	Operational	07/77 12/77
132	Field Data and Operating Time	AIF	244	0	0	30,705	0	0	0	100.28	MTBM	Operational	01/78 06/78
132	Field Data and Operating Time	AIF	10	0	0	37,453	0	0	0	3,070.50	MTBM	Operational	07/78 12/78
132	Field Data and Operating Time	AIF	23	0	0	178,344	0	0	0	1,628.39	MTBM	Operational	05/83 04/85
132	Field Data and Operating Time	AIF	2,734	6,116	0	178,344	0	0	0	65.23	MTBF Functional	Operational	05/83 04/85
132	Field Data and Operating Time	AIF	8,850	0	0	173,620	0	0	0	20.15	MTBMA	Operational	05/83 04/85
132	Field Data and Operating Time	AIF	1,691	2,964	0	173,620	0	0	0	102.67	MTBF Functional	Operational	05/83 04/85
132	Field Data and Operating Time	AIF	4,655	0	0	0	0	0	0	37.29	MTBMA	Operational	05/83 04/85
136	Contract Spec/Requirement	AIF	0	0	0	0	0	0	0	795.00	MTBF Series	Development	10/74
136	Contract Spec/Requirement	AIF	0	0	0	0	0	0	0	300.00	MTBF Series	Development	09/76
136	Analysis & Prediction Report	AI	0	0	0	0	0	0	0	836.00	MTBF Series	Development	10/72

# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
136	Demonstration Test Report	AIF	3	2	125	74	0	41.66 MTBF Series	Development	10/74	10/74
136	Demonstration Test Report	AIF	4	17	401	236	0	100.25 MTBF Series	Development	12/74	03/75
136	Demonstration Test Report	AIF	6	27	1,952	1,148	0	325.33 MTBF Series	Development	10/75	04/76
136	Simulated Operation	AIF	2	0	727	0	0	363.50 MTBF Series	Development	07/72	11/74
136	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
136	Field Data and Operating Time	AIF	0	0	24,470	0	161	35,310.24 MTBM	Operational	07/77	12/77
136	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
136	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
136	Field Data and Operating Time	AIF	893	2,626	178,344	0	0	199.71 MTBF Functional	Operational	05/83	04/85
136	Field Data and Operating Time	AIF	3,519	0	178,344	0	0	50.68 MTBMA	Operational	05/83	04/85
136	Field Data and Operating Time	AIF	651	2,273	173,620	0	0	266.69 MTBF Functional	Operational	05/83	04/85
136	Field Data and Operating Time	AIF	2,924	0	173,620	0	0	59.37 MTBMA	Operational	05/83	04/85
148	Contract Spec/Requirement	AIF	0	0	0	0	0	745.00 MTBF Series	Development		
148	Contract Spec/Requirement	AIF	0	0	0	0	0	500.00 MTBF Series	Development		
148	Analysis & Prediction Report	AI	0	0	0	0	0	937.00 MTBF Series	Development	02/74	02/74
148	Demonstration Test Report	AIF	6	22	491	430	0	81.83 MTBF Series	Development	04/73	08/73
148	Demonstration Test Report	AIF	5	23	2,846	2,304	0	569.20 MTBF Series	Development	02/74	01/75
148	Simulated Operation	AIF	14	4	3,105	0	0	221.78 MTBF Series	Development	07/72	11/74
148	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
148	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
148	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
148	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
148	Field Data and Operating Time	AIF	1,002	2,088	178,344	0	0	177.98 MTBF Functional	Operational	05/83	04/85
148	Field Data and Operating Time	AIF	3,090	0	178,344	0	0	57.71 MTBMA	Operational	05/83	04/85
148	Field Data and Operating Time	AIF	733	1,177	173,620	0	0	236.86 MTBF Functional	Operational	05/83	04/85
148	Field Data and Operating Time	AIF	1,910	0	173,620	0	0	90.90 MTBF Functional	Operational	05/83	04/85
216	Contract Spec/Requirement	AIF	0	0	0	0	0	620.00 MTBF Series	Development		
216	Analysis & Prediction Report	AI	0	0	0	0	0	907.00 MTBF Series	Development	06/72	
216	Demonstration Test Report	AIF	9	4	312	187	0	34.66 MTBF Series	Development	10/73	01/74
216	Demonstration Test Report	AIF	4	18	586	352	0	146.50 MTBF Series	Development	01/74	05/74
216	Demonstration Test Report	AIF	3	15	2,727	1,636	0	909.00 MTBF Series	Development	12/74	08/75
216	Simulated Operation	AIF	6	0	6,136	0	0	1,022.66 MTBF Series	Development	07/72	11/74
216	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
216	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
216	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
216	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
216	Field Data and Operating Time	AIF	640	1,448	178,344	0	0	278.66 MTBF Functional	Operational	05/83	04/85
216	Field Data and Operating Time	AIF	2,088	0	178,344	0	0	85.41 MTBMA	Operational	05/83	04/85
216	Field Data and Operating Time	AIF	763	1,476	173,620	0	0	227.54 MTBF Functional	Operational	05/83	04/85
216	Field Data and Operating Time	AIF	2,239	0	173,620	0	0	77.54 MTBMA	Operational	05/83	04/85
225	Contract Spec/Requirement	AIA	0	0	0	0	0	1,500.00 MTBF Series	Development	06/75	06/75
225	Demonstration Test Report	AIA	6	1	0	0	0	0.00 MTBF Series	Development	01/77	02/77
225	Demonstration Test Report	AIA	5	3	0	0	0	0.00 MTBF Series	Development	02/77	10/77
225	Demonstration Test Report	AIA	6	7	7,305	4,383	0	1,217.50 MTBF Series	Development	03/75	06/76
225	Simulated Operation	AIA	4	6	1,325	0	0	331.25 MTBF Series	Development	06/83	05/85
225	Field Data and Operating Time	AIA	1,265	1,074	450,653	0	0	356.24 MTBF Functional	Operational	06/83	05/85
225	Field Data and Operating Time	AIA	2,339	0	450,653	0	0	192.66 MTBF Functional	Operational	06/83	05/85
271	Contract Spec/Requirement	AIA	0	0	0	0	0	500.00 MTBF Series	Development		
271	Analysis & Prediction Report	AIA	0	0	0	0	0	827.00 MTBF Series	Development		
271	Analysis & Prediction Report	AIA	0	0	0	0	0	94,711.00 MTBF Functional	Development		
271	Analysis & Prediction Report	AIA	0	0	0	0	0	63,141.00 MTBF Series	Development		
271	Demonstration Test Report	AIA	0	2	758	456	0	1,093.79 MTBF Series	Development	07/76	09/76
271	Simulated Operation	AIA	3	0	1,325	0	0	441.66 MTBF Series	Development	03/75	06/76
271	Field Data and Operating Time	AIA	1,196	1,087	450,653	0	0	376.80 MTBF Functional	Operational	06/83	05/85
271	Field Data and Operating Time	AIA	2,283	0	450,653	0	0	197.39 MTBMA	Operational	06/83	05/85
276	Contract Spec/Requirement	AIA	0	0	0	0	0	1,000.00 MTBF Series	Development		
276	Analysis & Prediction Report	AIA	0	0	0	0	0	1,150.00 MTBF Series	Development		
276	Simulated Operation	AIA	2	56	1,325	0	0	662.50 MTBF Series	Development	03/75	06/76
276	Field Data and Operating Time	AIA	1,310	1,876	450,653	0	0	344.00 MTBF Functional	Operational	06/83	05/85
276	Field Data and Operating Time	AIA	3,186	0	450,653	0	0	141.44 MTBMA	Operational	06/83	05/85
323	Contract Spec/Requirement	AIF	0	0	0	0	0	500.00 MTBF Series	Development		
323	Analysis & Prediction Report	AIF	0	0	0	0	0	846.00 MTBF Series	Development		
323	Demonstration Test Report	AIF	0	0	0	0	0	476.00 MTBF Series	Development		
323	Field Data and Operating Time	AIF	53	0	6,320	1,649,320	189	119.24 MTBF Functional	Operational	01/79	12/79
323	Field Data and Operating Time	AIF	70	0	6,320	2,017,240	189	90.28 MTBMA	Operational	01/79	12/79
323	Field Data and Operating Time	AIF	36	0	12,189	2,081,451	239	338.58 MTBF Functional	Operational	01/80	06/80
323	Field Data and Operating Time	AIF	73	0	12,189	2,081,451	239	166.97 MTBMA	Operational	01/80	06/80
323	Field Data and Operating Time	AIF	55	0	20,304	2,905,536	334	369.16 MTBF Functional	Operational	07/80	12/80
323	Field Data and Operating Time	AIF	135	0	20,304	2,905,536	334	150.40 MTBMA	Operational	07/80	12/80
323	Field Data and Operating Time	AIF	1,368	2,556	303,981	0	0	222.20 MTBF Functional	Operational	05/83	04/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
323	Field Data and Operating Time	AIF	3,924	0	303,981	0	0	77.46 MTBMA	Operational	05/83	04/85
323	Field Data and Operating Time	AIF	336	626	53,220	0	0	158.39 MTBF Functional	Operational	05/83	04/85
323	Field Data and Operating Time	AIF	962	0	53,220	0	0	55.32 MTBMA	Operational	05/83	04/85
331	Field Data and Operating Time	GBC	1	0	5,200	0	0	5,200.00 MTBF Functional	Operational	01/81	01/81
331	Field Data and Operating Time	GBC	7	0	14,520	0	0	2,074.28 MTBF Functional	Operational	02/81	02/81
331	Field Data and Operating Time	GBC	9	0	26,280	0	0	2,920.00 MTBF Functional	Operational	03/81	03/81
331	Field Data and Operating Time	GBC	5	0	40,840	0	0	8,168.00 MTBF Functional	Operational	03/81	04/81
331	Field Data and Operating Time	GBC	9	0	56,120	0	0	6,235.55 MTBF Functional	Operational	04/81	05/81
331	Field Data and Operating Time	GBC	3	0	70,760	0	0	23,586.66 MTBF Functional	Operational	05/83	06/83
331	Field Data and Operating Time	GBC	8	0	94,720	0	0	11,840.00 MTBF Functional	Operational	06/81	07/81
331	Field Data and Operating Time	GBC	11	0	109,360	0	0	9,941.81 MTBF Functional	Operational	07/81	08/81
331	Field Data and Operating Time	GBC	12	0	123,560	0	0	10,296.66 MTBF Functional	Operational	08/81	09/81
331	Field Data and Operating Time	GBC	15	0	151,120	0	0	10,074.66 MTBF Functional	Operational	09/81	10/81
331	Field Data and Operating Time	GBC	9	0	182,480	0	0	20,275.55 MTBF Functional	Operational	10/81	11/81
331	Field Data and Operating Time	GBC	17	0	207,280	0	0	12,192.94 MTBF Functional	Operational	11/81	12/81
331	Field Data and Operating Time	GBC	11	0	228,160	0	0	20,741.81 MTBF Functional	Operational	12/81	01/82
331	Field Data and Operating Time	GBC	15	0	244,240	0	0	16,282.66 MTBF Functional	Operational	01/82	01/82
331	Field Data and Operating Time	GBC	19	0	263,680	0	0	13,877.89 MTBF Functional	Operational	01/82	02/82
331	Field Data and Operating Time	GBC	18	0	295,320	0	0	16,406.66 MTBF Functional	Operational	02/82	03/82
331	Field Data and Operating Time	GBC	8	0	325,400	0	0	40,675.00 MTBF Functional	Operational	03/82	04/82
331	Field Data and Operating Time	GBC	16	0	349,520	0	0	21,845.00 MTBF Functional	Operational	04/82	05/82
331	Field Data and Operating Time	GBC	10	0	389,840	0	0	38,984.00 MTBF Functional	Operational	05/82	06/82
331	Field Data and Operating Time	GBC	19	0	433,840	0	0	22,833.68 MTBF Functional	Operational	06/82	07/82
331	Field Data and Operating Time	GBC	20	0	458,120	0	0	22,906.00 MTBF Functional	Operational	07/82	08/82
331	Field Data and Operating Time	GBC	27	0	448,440	0	0	16,608.88 MTBF Functional	Operational	08/82	09/82
331	Field Data and Operating Time	GBC	72	0	518,160	0	0	7,196.66 MTBF Functional	Operational	09/82	10/82
331	Field Data and Operating Time	GBC	98	0	553,640	0	0	5,649.38 MTBF Functional	Operational	10/82	11/82
331	Field Data and Operating Time	GBC	36	0	588,880	0	0	16,357.77 MTBF Functional	Operational	11/82	12/82
331	Field Data and Operating Time	GBC	59	0	633,320	0	0	10,734.23 MTBF Functional	Operational	12/82	01/83
331	Field Data and Operating Time	GBC	62	0	661,520	0	0	10,669.67 MTBF Functional	Operational	01/83	01/83
331	Field Data and Operating Time	GBC	81	0	694,000	0	0	8,567.90 MTBF Functional	Operational	01/83	02/83
331	Field Data and Operating Time	GBC	66	0	726,040	0	0	11,000.60 MTBF Functional	Operational	02/83	03/83
331	Field Data and Operating Time	GBC	45	0	763,200	0	0	16,960.00 MTBF Functional	Operational	03/83	04/83
331	Field Data and Operating Time	GBC	34	0	789,280	0	0	23,214.11 MTBF Functional	Operational	04/83	05/83
331	Field Data and Operating Time	GBC	48	0	825,360	0	0	17,195.00 MTBF Functional	Operational	05/83	06/83

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Controls/Displays,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
331	Field Data and Operating Time	GBC	40	0	855,680	0	0	21,392.00 MTBF Functional	Operational	06/83	07/83
331	Field Data and Operating Time	GBC	19	0	34,709	0	0	1,826.78 MTBF Functional	Operational	07/83	08/83
352	Contract Spec/Requirement	AIF	0	0	0	0	0	475.00 MTBF Series	Development		
352	Analysis & Prediction Report	AIF	0	0	0	0	0	1,020.00 MTBF Series	Development		
352	Demonstration Test Report	AIF	0	0	0	0	0	856.00 MTBF Series	Development		
352	Field Data and Operating Time	AIF	1,112	1,678	313,026	0	0	281.49 MTBF Functional	Operational	07/83	06/85
352	Field Data and Operating Time	AIF	2,790	0	313,026	0	0	112.19 MTBMA	Operational	07/83	06/85
352	Field Data and Operating Time	AIF	443	491	58,583	0	0	132.24 MTBF Functional	Operational	07/83	06/85
352	Field Data and Operating Time	AIF	934	0	58,583	0	0	62.72 MTBMA	Operational	07/83	11/84

### Controls/Displays, Amplifier, Video

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
324	Field Data and Operating Time	AIF	19	0	6,320	1,649,320	189	332.63 MTBF Functional	Operational	01/79	12/79
324	Field Data and Operating Time	AIF	25	0	6,320	2,017,240	189	252.80 MTBMA	Operational	01/79	12/79
324	Field Data and Operating Time	AIF	17	0	12,189	2,081,451	239	717.00 MTBF Functional	Operational	01/80	06/80
324	Field Data and Operating Time	AIF	43	0	12,189	2,081,451	239	283.46 MTBMA	Operational	01/80	06/80
324	Field Data and Operating Time	AIF	34	0	20,304	2,905,536	334	597.17 MTBF Functional	Operational	07/80	12/80
324	Field Data and Operating Time	AIF	68	0	20,304	2,905,536	334	298.58 MTBMA	Operational	07/80	12/80
324	Field Data and Operating Time	AIF	334	634	303,981	0	0	910.12 MTBF Functional	Operational	05/83	04/85
324	Field Data and Operating Time	AIF	968	0	303,981	0	0	314.02 MTBMA	Operational	05/83	04/85
324	Field Data and Operating Time	AIF	73	109	53,220	0	0	729.04 MTBF Functional	Operational	05/83	04/85
324	Field Data and Operating Time	AIF	182	0	53,220	0	0	292.41 MTBMA	Operational	05/83	04/85

### Controls/Displays, Converter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
138	Contract Spec/Requirement	AIF	0	0	0	0	0	939.00 MTBF Series	Development	10/74	
138	Analysis & Prediction Report	AI	0	0	0	0	0	988.00 MTBF Series	Development	10/72	
138	Demonstration Test Report	AIF	0	1	125	74	0	180.37 MTBF Series	Development	10/74	10/74
138	Demonstration Test Report	AIF	1	6	401	236	0	401.00 MTBF Series	Development	12/74	03/75
138	Demonstration Test Report	AIF	4	12	1,952	1,148	0	488.00 MTBF Series	Development	10/75	04/76
138	Simulated Operation	AIF	1	0	727	0	0	727.00 MTBF Series	Development	07/72	11/74

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Converter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
138	Field Data and Operating Time	AIF	529	1,568	178,344	0	0	337.13 MTBF Functional	Operational	05/83	04/85
138	Field Data and Operating Time	AIF	2,096	0	178,344	0	0	85.08 MTBMA	Operational	05/83	04/85
138	Field Data and Operating Time	AIF	418	1,056	173,620	0	0	415.35 MTBF Functional	Operational	05/83	04/85
138	Field Data and Operating Time	AIF	1,474	0	173,620	0	0	117.78 MTBMA	Operational	05/83	04/85
189	Simulated Operation	AUF	3	0	1,046	0	0	348.66 MTBF Series	Development	07/76	08/76
189	Field Data and Operating Time	AIF	428	260	49,969	0	0	116.75 MTBF Functional	Operational	07/83	06/85
189	Field Data and Operating Time	AIF	688	0	49,969	0	0	72.62 MTBMA	Operational	07/83	06/85

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
30	Simulated Operation	AIF	1	0	1,606	0	0	1,606.00 MTBF Series	Development	07/72	11/74
30	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
30	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
30	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
30	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
31	Simulated Operation	AIF	1	0	1,606	0	0	1,606.00 MTBF Series	Development	07/72	11/74
31	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
31	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
31	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
31	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
32	Simulated Operation	AIF	5	0	5,813	0	0	1,162.60 MTBF Series	Development	07/72	11/74
32	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
32	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
32	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
32	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
32	Field Data and Operating Time	AIF	363	427	178,344	0	0	491.30 MTBF Functional	Operational	05/83	04/85
32	Field Data and Operating Time	AIF	790	0	178,344	0	0	225.75 MTBMA	Operational	05/83	04/85
32	Field Data and Operating Time	AIF	274	305	173,620	0	0	633.64 MTBF Functional	Operational	05/83	04/85
32	Field Data and Operating Time	AIF	579	0	173,620	0	0	299.86 MTBMA	Operational	05/83	04/85
33	Simulated Operation	AIF	5	0	1,606	0	0	321.20 MTBF Series	Development	07/72	11/74
33	Field Data and Operating Time	AIF	14	0	18,044	0	161	1,288.85 MTBM	Operational	01/77	06/77
33	Field Data and Operating Time	AIF	16	0	24,470	0	203	1,529.37 MTBM	Operational	07/77	12/77
33	Field Data and Operating Time	AIF	1	0	30,705	0	269	30,705.00 MTBM	Operational	01/78	06/78

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	APP	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE				START	END
33	Field Data and Operating Time	AIF	1	0	37,453	0	296	37,453.00	MTBF	Operational	07/78	12/78
44	Contract Spec/Requirement	AIF	0	0	0	0	0	1,000.00	MTBF Series	Development		
44	Contract Spec/Requirement	AUF	0	0	0	0	0	1,000.00	MTBF Series	Development		
44	Analysis & Prediction Report	AI	0	0	0	0	0	4,626.00	MTBF Series	Development		
44	Analysis & Prediction Report	AI	0	0	0	0	0	4,602.00	MTBF Series	Development		
44	Demonstration Test Report	AIF	2	1	3,820	1,910	0	1,910.00	MTBF Series	Development	01/73	06/73
44	Simulated Operation	AIF	5	0	1,606	0	0	321.20	MTBF Series	Development	07/72	11/74
44	Field Data and Operating Time	AIF	21	0	18,044	0	161	859.23	MTBF	Operational	01/77	06/77
44	Field Data and Operating Time	AIF	19	0	24,470	0	203	1,287.89	MTBF	Operational	07/77	12/77
44	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35	MTBF	Operational	01/78	06/78
44	Field Data and Operating Time	AIF	2	0	37,453	0	296	18,726.50	MTBF	Operational	07/78	12/78
44	Field Data and Operating Time	AIF	108	110	178,344	0	0	1,651.33	MTBF Functional	Operational	05/83	04/85
44	Field Data and Operating Time	AIF	218	0	178,344	0	0	818.09	MTBMA	Operational	05/83	04/85
44	Field Data and Operating Time	AIF	58	35	173,620	0	0	2,993.44	MTBF Functional	Operational	05/83	04/85
44	Field Data and Operating Time	AIF	93	0	173,620	0	0	1,866.88	MTBMA	Operational	05/83	04/85
134	Demonstration Test Report	AIF	4	15	1,428	3,164	0	357.00	MTBF Series	Development	08/75	03/76
134	Simulated Operation	AIF	14	3	2,623	0	0	187.35	MTBF Series	Development	07/72	11/74
134	Simulated Operation	AIF	7	0	1,929	0	0	275.57	MTBF Series	Development	04/74	06/75
134	Field Data and Operating Time	AIF	1,067	1,377	178,344	0	0	167.14	MTBF Functional	Operational	05/83	04/85
134	Field Data and Operating Time	AIF	2,444	0	178,344	0	0	72.97	MTBMA	Operational	05/83	04/85
134	Field Data and Operating Time	AIF	766	673	173,620	0	0	226.65	MTBF Functional	Operational	05/83	04/85
134	Field Data and Operating Time	AIF	1,439	0	173,620	0	0	120.65	MTBMA	Operational	05/83	04/85
137	Contract Spec/Requirement	AIF	0	0	0	0	0	5,163.00	MTBF Series	Development	10/74	
137	Analysis & Prediction Report	AI	0	0	0	0	0	5,430.00	MTBF Series	Development	10/72	
137	Demonstration Test Report	AIF	3	0	125	74	0	41.66	MTBF Series	Development	10/74	10/74
137	Demonstration Test Report	AIF	3	5	401	236	0	133.66	MTBF Series	Development	12/74	03/75
137	Demonstration Test Report	AIF	1	9	1,952	1,148	0	1,952.00	MTBF Series	Development	10/75	04/76
137	Simulated Operation	AIF	0	0	727	0	0	1,049.06	MTBF Series	Development	07/72	11/74
137	Field Data and Operating Time	AIF	342	965	178,344	0	0	521.47	MTBF Functional	Operational	05/83	04/85
137	Field Data and Operating Time	AIF	1,307	0	178,344	0	0	136.45	MTBMA	Operational	05/83	04/85
137	Field Data and Operating Time	AIF	191	518	173,620	0	0	909.00	MTBF Functional	Operational	05/83	04/85
137	Field Data and Operating Time	AIF	709	0	173,620	0	0	244.88	MTBMA	Operational	05/83	04/85
150	Analysis & Prediction Report	AI	0	0	0	0	0	2,787.00	MTBF Series	Development		
150	Demonstration Test Report	AIF	3	8	491	430	0	163.66	MTBF Series	Development	04/73	08/73
150	Demonstration Test Report	AIF	3	18	2,846	2,304	0	948.66	MTBF Series	Development	02/74	01/75

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
150	Simulated Operation	AIF	11	0	3,105	0	0	282.27 MTBF Series	Development	07/72	11/74
150	Field Data and Operating Time	AIF	661	964	178,344	0	0	269.80 MTBF Functional	Operational	05/83	04/85
150	Field Data and Operating Time	AIF	1,625	0	178,344	0	0	109.75 MTBMA	Operational	05/83	04/85
150	Field Data and Operating Time	AIF	377	329	173,620	0	0	460.53 MTBF Functional	Operational	05/83	04/85
150	Field Data and Operating Time	AIF	706	0	173,620	0	0	245.92 MTBMA	Operational	05/83	04/85
187	Contract Spec/Requirement	AIF	0	0	0	0	0	177.00 MTBF Series	Production		
187	Contract Spec/Requirement	AIF	0	0	0	0	0	142.00 MTBF Series	Production		
188	Simulated Operation	AIF	1	0	1,037	0	0	1,037.00 MTBF Series	Development	07/76	08/76
188	Field Data and Operating Time	AIF	269	67	49,969	0	0	185.75 MTBF Functional	Operational	07/83	06/85
188	Field Data and Operating Time	AIF	336	0	49,969	0	0	148.71 MTBMA	Operational	07/83	06/85
190	Simulated Operation	AIF	1	0	1,012	0	0	1,012.00 MTBF Series	Development	07/76	08/76
190	Field Data and Operating Time	AIF	327	0	49,969	0	0	152.81 MTBMA	Operational	07/83	06/85
190	Field Data and Operating Time	AIF	244	83	49,969	0	0	204.79 MTBF Functional	Operational	07/83	06/85
191	Simulated Operation	AIF	7	0	1,060	0	0	151.42 MTBF Series	Development	07/76	08/76
191	Field Data and Operating Time	AIF	1,408	0	49,969	0	0	35.48 MTBMA	Operational	07/83	06/85
191	Field Data and Operating Time	AIF	804	604	49,969	0	0	62.15 MTBF Functional	Operational	07/83	06/85
192	Simulated Operation	AIF	10	0	1,047	0	0	104.70 MTBF Series	Development	07/76	08/76
192	Field Data and Operating Time	AIF	5,155	0	49,969	0	0	9.69 MTBMA	Operational	07/83	06/85
192	Field Data and Operating Time	AIF	945	4,210	49,969	0	0	52.87 MTBF Functional	Operational	07/83	06/85
193	Simulated Operation	AIF	3	0	524	0	0	174.66 MTBF Series	Development	07/76	08/76
193	Field Data and Operating Time	AIF	282	352	49,969	0	0	177.19 MTBF Functional	Operational	07/83	06/85
193	Field Data and Operating Time	AIF	634	0	49,969	0	0	78.81 MTBMA	Operational	07/83	06/85
217	Analysis & Prediction Report	AI	0	0	0	0	0	1,941.00 MTBF Series	Development		06/72
217	Demonstration Test Report	AIF	4	7	312	187	0	78.00 MTBF Series	Development	10/73	01/74
217	Demonstration Test Report	AIF	4	18	586	352	0	146.50 MTBF Series	Development	01/74	04/74
217	Demonstration Test Report	AIF	1	11	2,727	1,636	0	2,727.00 MTBF Series	Development	12/74	08/75
217	Simulated Operation	AIF	5	0	6,136	0	0	1,227.20 MTBF Series	Development	07/72	11/74
217	Simulated Operation	AIF	12	0	2,795	0	0	232.91 MTBF Series	Development	04/74	06/75
217	Field Data and Operating Time	AIF	452	849	178,344	0	0	394.56 MTBF Functional	Operational	05/83	04/85
217	Field Data and Operating Time	AIF	1,301	0	178,344	0	0	137.08 MTBMA	Operational	05/83	04/85
217	Field Data and Operating Time	AIF	584	980	173,620	0	0	297.29 MTBF Functional	Operational	05/83	04/85
217	Field Data and Operating Time	AIF	1,564	0	173,620	0	0	111.01 MTBMA	Operational	05/83	04/85
222	Analysis & Prediction Report	AIA	0	0	0	0	0	3,401.00 MTBF Series	Development		
222	Simulated Operation	AIA	0	26	1,325	0	0	1,911.97 MTBF Series	Development	03/75	06/76
222	Field Data and Operating Time	AIA	834	1,153	450,653	0	0	540.35 MTBF Functional	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
222	Field Data and Operating Time	AIA	1,987	0	450,653	0	0	226.80 MTBMA	Operational	06/83	05/85
224	Analysis & Prediction Report	AIA	0	0	0	0	0	14,492.00 MTBF Series	Development		
224	Simulated Operation	AIA	0	2	1,325	0	0	1,911.97 MTBF Series	Development	03/75	06/76
224	Field Data and Operating Time	AIA	95	115	450,653	0	0	4,743.71 MTBF Functional	Operational	06/83	05/85
224	Field Data and Operating Time	AIA	210	0	450,653	0	0	2,145.96 MTBMA	Operational	06/83	05/85
226	Demonstration Test Report	AIA	6	1	0	0	0	0.00 MTBF Series	Development	06/75	06/75
226	Demonstration Test Report	AIA	5	2	0	0	0	0.00 MTBF Series	Development	01/77	02/77
226	Demonstration Test Report	AIA	5	5	7,305	4,383	0	1,461.00 MTBF Series	Development	02/77	10/77
226	Simulated Operation	AIA	2	3	1,325	0	0	662.50 MTBF Series	Development	03/75	06/76
226	Field Data and Operating Time	AIA	405	243	450,653	0	0	1,112.72 MTBF Functional	Operational	06/83	05/85
226	Field Data and Operating Time	AIA	648	0	450,653	0	0	695.45 MTBMA	Operational	06/83	05/85
227	Demonstration Test Report	AIA	0	0	0	0	0	0.00 MTBF Series	Development	06/75	06/75
227	Demonstration Test Report	AIA	0	1	0	0	0	0.00 MTBF Series	Development	01/77	02/77
227	Demonstration Test Report	AIA	1	1	3,705	4,383	0	3,705.00 MTBF Series	Development	02/77	10/77
227	Simulated Operation	AIA	2	2	1,325	0	0	662.50 MTBF Series	Development	03/75	06/76
227	Field Data and Operating Time	AIA	130	38	450,653	0	0	3,466.56 MTBF Functional	Operational	06/83	05/85
227	Field Data and Operating Time	AIA	168	0	450,653	0	0	2,682.45 MTBMA	Operational	06/83	05/85
272	Analysis & Prediction Report	AIA	0	0	0	0	0	296.00 MTBF Series	Development		
272	Demonstration Test Report	AIA	0	0	758	456	0	1,093.79 MTBF Series	Development	07/76	09/76
272	Simulated Operation	AIA	0	3	1,325	0	0	1,911.97 MTBF Series	Development	03/75	06/76
272	Field Data and Operating Time	AIA	634	331	450,653	0	0	710.80 MTBF Functional	Operational	06/83	05/85
272	Field Data and Operating Time	AIA	965	0	450,653	0	0	466.99 MTBMA	Operational	06/83	05/85
273	Analysis & Prediction Report	AIA	0	0	0	0	0	77.00 MTBF Series	Development		
273	Analysis & Prediction Report	AIA	0	0	0	0	0	263,899.00 MTBF Functional	Development		
273	Analysis & Prediction Report	AIA	0	0	0	0	0	171,292.00 MTBF Series	Development		
273	Demonstration Test Report	AIA	0	0	758	456	0	1,093.79 MTBF Series	Development	07/76	09/76
273	Simulated Operation	AIA	3	14	1,325	0	0	441.66 MTBF Series	Development	03/75	06/76
273	Field Data and Operating Time	AIA	463	502	450,653	0	0	973.33 MTBF Functional	Operational	06/83	05/85
273	Field Data and Operating Time	AIA	965	0	450,653	0	0	466.99 MTBMA	Operational	06/83	05/85
274	Analysis & Prediction Report	AIA	0	0	0	0	0	2,520.00 MTBF Series	Development		
274	Analysis & Prediction Report	AIA	0	0	0	0	0	232,162.00 MTBF Functional	Development		
274	Analysis & Prediction Report	AIA	0	0	0	0	0	154,775.00 MTBF Series	Development		
274	Demonstration Test Report	AIA	0	2	5,306	3,192	0	7,656.56 MTBF Series	Development	07/76	09/76
274	Simulated Operation	AIA	0	3	9,275	0	0	13,383.83 MTBF Series	Development	03/75	06/76
274	Field Data and Operating Time	AIA	31	22	450,653	0	0	14,537.19 MTBF Functional	Operational	06/83	05/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NOM-REL	OPERATE	NON-OP				START	END
274	Field Data and Operating Time	AIA	53	0	450,653	0	0	8,502.88 MTBF	Operational	06/83	05/85
275	Analysis & Prediction Report	AIA	0	0	0	0	0	4,370.00 MTBF Series	Development		
275	Analysis & Prediction Report	AIA	0	0	0	0	0	406,284.00 MTBF Functional	Development		
275	Analysis & Prediction Report	AIA	0	0	0	0	0	270,856.00 MTBF Series	Development		
275	Demonstration Test Report	AIA	0	0	3,032	1,824	0	4,375.18 MTBF Series	Development	07/76	09/76
275	Simulated Operation	AIA	0	0	5,300	0	0	7,647.90 MTBF Series	Development	03/75	06/76
275	Field Data and Operating Time	AIA	13	11	450,653	0	0	34,665.61 MTBF Functional	Operational	06/83	05/85
275	Field Data and Operating Time	AIA	24	0	450,653	0	0	18,777.20 MTBF	Operational	06/83	05/85
325	Field Data and Operating Time	AIF	34	0	6,320	2,017,240	231	185.88 MTBF Functional	Operational	01/79	12/79
325	Field Data and Operating Time	AIF	45	0	6,320	2,017,240	231	140.44 MTBF	Operational	01/79	12/79
325	Field Data and Operating Time	AIF	19	0	12,189	2,335,491	268	641.52 MTBF Functional	Operational	01/80	06/80
325	Field Data and Operating Time	AIF	30	0	12,189	2,335,491	268	406.30 MTBF	Operational	01/80	06/80
325	Field Data and Operating Time	AIF	21	0	20,304	2,905,536	391	966.85 MTBF Functional	Operational	07/80	12/80
325	Field Data and Operating Time	AIF	67	0	20,304	3,404,856	391	303.04 MTBF	Operational	07/80	12/80
325	Field Data and Operating Time	AIF	68	437	303,981	0	0	455.06 MTBF Functional	Operational	05/83	04/85
325	Field Data and Operating Time	AIF	1,105	0	303,981	0	0	275.09 MTBF	Operational	05/83	04/85
325	Field Data and Operating Time	AIF	153	106	53,220	0	0	347.84 MTBF Functional	Operational	05/83	04/85
325	Field Data and Operating Time	AIF	259	0	53,220	0	0	205.48 MTBF	Operational	05/83	04/85
332	Field Data and Operating Time	GBC	0	0	5,200	0	0	7,503.60 MTBF Functional	Operational	01/81	01/81
332	Field Data and Operating Time	GBC	2	0	14,520	0	0	7,260.00 MTBF Functional	Operational	02/81	02/81
332	Field Data and Operating Time	GBC	5	0	26,280	0	0	5,256.00 MTBF Functional	Operational	03/81	03/81
332	Field Data and Operating Time	GBC	3	0	40,840	0	0	13,613.33 MTBF Functional	Operational	03/81	04/81
332	Field Data and Operating Time	GBC	5	0	56,120	0	0	11,224.00 MTBF Functional	Operational	04/81	05/81
332	Field Data and Operating Time	GBC	3	0	70,760	0	0	23,586.66 MTBF Functional	Operational	05/81	06/81
332	Field Data and Operating Time	GBC	4	0	94,720	0	0	23,680.00 MTBF Functional	Operational	06/81	07/81
332	Field Data and Operating Time	GBC	7	0	109,360	0	0	15,622.85 MTBF Functional	Operational	07/81	08/81
332	Field Data and Operating Time	GBC	7	0	123,560	0	0	17,651.42 MTBF Functional	Operational	08/81	09/81
332	Field Data and Operating Time	GBC	11	0	151,120	0	0	13,738.18 MTBF Functional	Operational	09/81	10/81
332	Field Data and Operating Time	GBC	6	0	182,480	0	0	30,413.33 MTBF Functional	Operational	10/81	11/81
332	Field Data and Operating Time	GBC	11	0	207,280	0	0	18,843.63 MTBF Functional	Operational	11/81	12/81
332	Field Data and Operating Time	GBC	5	0	228,160	0	0	45,632.00 MTBF Functional	Operational	12/81	01/82
332	Field Data and Operating Time	GBC	9	0	244,240	0	0	27,137.77 MTBF Functional	Operational	01/82	01/82
332	Field Data and Operating Time	GBC	13	0	263,680	0	0	20,283.07 MTBF Functional	Operational	01/82	02/82
332	Field Data and Operating Time	GBC	14	0	295,320	0	0	21,094.28 MTBF Functional	Operational	02/82	03/82
332	Field Data and Operating Time	GBC	4	0	325,400	0	0	81,350.00 MTBF Functional	Operational	03/82	04/82

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
332	Field Data and Operating Time	GBC	12	0	349,520	0	0	29,126.66 MTBF Functional	Operational	04/82	05/82
332	Field Data and Operating Time	GBC	8	0	389,840	0	0	48,730.00 MTBF Functional	Operational	05/82	06/82
332	Field Data and Operating Time	GBC	8	0	433,840	0	0	54,230.00 MTBF Functional	Operational	06/82	07/82
332	Field Data and Operating Time	GBC	9	0	458,120	0	0	50,902.22 MTBF Functional	Operational	07/82	08/82
332	Field Data and Operating Time	GBC	15	0	488,440	0	0	32,562.66 MTBF Functional	Operational	08/82	09/82
332	Field Data and Operating Time	GBC	34	0	518,160	0	0	15,240.00 MTBF Functional	Operational	09/82	10/82
332	Field Data and Operating Time	GBC	48	0	553,640	0	0	11,534.16 MTBF Functional	Operational	10/82	11/82
332	Field Data and Operating Time	GBC	19	0	588,880	0	0	30,993.68 MTBF Functional	Operational	11/82	12/82
332	Field Data and Operating Time	GBC	13	0	63,320	0	0	4,870.76 MTBF Functional	Operational	12/82	01/83
332	Field Data and Operating Time	GBC	17	0	661,520	0	0	38,912.94 MTBF Functional	Operational	01/83	01/83
332	Field Data and Operating Time	GBC	17	0	694,000	0	0	40,823.52 MTBF Functional	Operational	01/83	02/83
332	Field Data and Operating Time	GBC	19	0	726,040	0	0	38,212.63 MTBF Functional	Operational	02/83	03/83
332	Field Data and Operating Time	GBC	11	0	763,200	0	0	69,381.81 MTBF Functional	Operational	03/83	04/83
332	Field Data and Operating Time	GBC	13	0	789,280	0	0	60,713.84 MTBF Functional	Operational	04/83	05/83
332	Field Data and Operating Time	GBC	18	0	825,360	0	0	45,853.33 MTBF Functional	Operational	05/83	06/83
332	Field Data and Operating Time	GBC	10	0	855,680	0	0	85,568.00 MTBF Functional	Operational	06/83	07/83
332	Field Data and Operating Time	GBC	4	0	659,480	0	0	164,870.00 MTBF Functional	Operational	07/83	08/83
333	Field Data and Operating Time	GBC	1	0	5,200	0	0	5,200.00 MTBF Functional	Operational	01/81	01/81
333	Field Data and Operating Time	GBC	5	0	14,520	0	0	2,904.00 MTBF Functional	Operational	02/81	02/81
333	Field Data and Operating Time	GBC	4	0	26,280	0	0	6,570.00 MTBF Functional	Operational	03/81	03/81
333	Field Data and Operating Time	GBC	2	0	40,840	0	0	20,420.00 MTBF Functional	Operational	03/81	04/81
333	Field Data and Operating Time	GBC	4	0	56,120	0	0	14,030.00 MTBF Functional	Operational	04/81	05/81
333	Field Data and Operating Time	GBC	0	0	70,760	0	0	102,106.78 MTBF Functional	Operational	05/81	06/81
333	Field Data and Operating Time	GBC	4	0	94,720	0	0	23,680.00 MTBF Functional	Operational	06/81	07/81
333	Field Data and Operating Time	GBC	4	0	109,360	0	0	27,340.00 MTBF Functional	Operational	07/81	08/81
333	Field Data and Operating Time	GBC	5	0	24,712	0	0	4,942.40 MTBF Functional	Operational	08/81	09/81
333	Field Data and Operating Time	GBC	4	0	151,120	0	0	37,780.00 MTBF Functional	Operational	09/81	10/81
333	Field Data and Operating Time	GBC	3	0	182,480	0	0	60,826.66 MTBF Functional	Operational	10/81	11/81
333	Field Data and Operating Time	GBC	6	0	207,280	0	0	34,546.66 MTBF Functional	Operational	11/81	12/81
333	Field Data and Operating Time	GBC	6	0	228,160	0	0	38,026.66 MTBF Functional	Operational	12/81	01/82
333	Field Data and Operating Time	GBC	6	0	244,240	0	0	40,706.66 MTBF Functional	Operational	01/82	01/82
333	Field Data and Operating Time	GBC	6	0	263,680	0	0	43,946.66 MTBF Functional	Operational	01/82	02/82
333	Field Data and Operating Time	GBC	4	0	295,320	0	0	73,830.00 MTBF Functional	Operational	02/82	03/82
333	Field Data and Operating Time	GBC	4	0	325,400	0	0	81,350.00 MTBF Functional	Operational	03/82	04/82
333	Field Data and Operating Time	GBC	4	0	349,520	0	0	87,380.00 MTBF Functional	Operational	04/82	05/82



# BERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE				START	END
333	Field Data and Operating Time	GBC	2	0	389,840	0	0	0	194,920.00 MTBF	Functional	05/82	06/82
333	Field Data and Operating Time	GBC	11	0	433,840	0	0	0	39,440.00 MTBF	Functional	06/82	07/82
333	Field Data and Operating Time	GBC	11	0	458,120	0	0	0	41,647.27 MTBF	Functional	07/82	08/82
333	Field Data and Operating Time	GBC	12	0	488,440	0	0	0	40,703.33 MTBF	Functional	08/82	09/82
333	Field Data and Operating Time	GBC	38	0	518,160	0	0	0	13,635.78 MTBF	Functional	09/89	10/82
333	Field Data and Operating Time	GBC	49	0	553,640	0	0	0	11,298.77 MTBF	Functional	10/82	11/82
333	Field Data and Operating Time	GBC	17	0	588,880	0	0	0	34,640.00 MTBF	Functional	11/82	12/82
333	Field Data and Operating Time	GBC	46	0	633,320	0	0	0	13,767.82 MTBF	Functional	12/82	01/83
333	Field Data and Operating Time	GBC	45	0	661,520	0	0	0	14,700.44 MTBF	Functional	01/83	01/83
333	Field Data and Operating Time	GBC	64	0	694,000	0	0	0	10,843.75 MTBF	Functional	01/83	02/83
333	Field Data and Operating Time	GBC	47	0	726,040	0	0	0	15,447.65 MTBF	Functional	02/83	03/83
333	Field Data and Operating Time	GBC	34	0	763,200	0	0	0	22,447.05 MTBF	Functional	03/83	04/83
333	Field Data and Operating Time	GBC	21	0	789,280	0	0	0	37,584.76 MTBF	Functional	04/83	05/83
333	Field Data and Operating Time	GBC	30	0	825,360	0	0	0	27,512.00 MTBF	Functional	05/83	06/83
333	Field Data and Operating Time	GBC	30	0	855,680	0	0	0	28,522.66 MTBF	Functional	06/83	07/83
333	Field Data and Operating Time	GBC	15	0	659,480	0	0	0	43,965.33 MTBF	Functional	07/83	08/83
353	Field Data and Operating Time	AIF	624	400	313,026	0	0	0	501.64 MTBF	Functional	07/83	06/85
353	Field Data and Operating Time	AIF	1,024	0	313,026	0	0	0	305.68 MTBMA	Operational	07/83	06/85
353	Field Data and Operating Time	AIF	263	127	58,583	0	0	0	222.74 MTBF	Functional	07/83	06/85
353	Field Data and Operating Time	AIF	390	0	58,583	0	0	0	150.21 MTBMA	Operational	07/83	06/85
385	Contract Spec/Requirement	AUA	0	0	0	0	0	0	500.00 MTBF	Series		
385	Analysis & Prediction Report	AU	0	0	0	0	0	0	3,713.00 MTBF	Series		
385	Demonstration Test Report	AU	4	0	3,903	0	0	0	975.75 MTBF	Series	05/79	06/79
385	Field Data and Operating Time	AUA	203	379	450,653	0	0	8	2,219.96 MTBF	Functional	06/83	05/85
385	Field Data and Operating Time	AUA	582	0	450,653	0	0	0	774.31 MTBMA	Operational	06/83	05/85
385	Field Data and Operating Time	AUF	91	184	53,220	0	0	0	584.83 MTBF	Functional	05/85	04/85
385	Field Data and Operating Time	AUF	275	0	53,220	0	0	0	193.52 MTBMA	Operational	05/85	04/85
385	Field Data and Operating Time	AUF	256	944	303,981	0	0	0	1,187.42 MTBF	Functional	05/85	04/85
385	Field Data and Operating Time	AUF	1,200	0	303,981	0	0	0	253.31 MTBMA	Operational	05/85	04/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Controls/Displays, Miscellaneous

Controls/Displays, Miscellaneous													
EQUIP	APP	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE			
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END		
355	Field Data and Operating Time	AIF	4	2	313,026	0	0	78,256.50 MTBF	Functional	Operational	07/83	06/85	
355	Field Data and Operating Time	AIF	6	0	313,026	0	0	52,171.00 MTBMA		Operational	07/83	06/85	
355	Field Data and Operating Time	AIF	1	1	58,583	0	0	58,583.00 MTBF	Functional	Operational	07/83	06/85	
355	Field Data and Operating Time	AIF	2	0	58,583	0	0	29,291.50 MTBMA		Operational	07/83	06/85	

### Controls/Displays, Power Supply

Controls/Displays, Power Supply													
EQUIP	APP	FAILURES	TEST HOURS		SAMPLE	TEST DATE							
ID	ENV	RELEVENT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER	PROGRAM PHASE	START	END			
194	Simulated Operation	AIF	1	0	1,007	0	0	1,007.00 MTBF Series	Development	07/76	08/76		
194	Field Data and Operating Time	AUF	32	10	49,969	0	0	1,561.53 MTBF Functional	Operational	07/83	06/85		
194	Field Data and Operating Time	AUF	42	0	49,969	0	0	1,189.73 MTBMA	Operational	07/83	06/85		
194	Field Data and Operating Time	AUF	100	79	49,969	0	0	499.69 MTBF Functional	Operational	07/83	06/85		
194	Field Data and Operating Time	AUF	179	0	49,969	0	0	279.15 MTBMA	Operational	07/83	06/85		

### Controls/Displays, Signal/Data

Controls/Displays, Signal/Data													
EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE		
				RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END	
	133	Demonstration Test Report	AIF	2	13	1,428	3,164	0	714.00	MTBF Series	Development	08/75	03/76
	133	Demonstration Test Report	AIF	15	0	0	0	0	0.00	MTBF Series	Development	01/73	04/75
	133	Simulated Operation	AIF	3	0	2,603	0	0	867.66	MTBF Series	Development	07/72	11/74
	133	Simulated Operation	AIF	7	0	1,923	0	0	274.71	MTBF Series	Development	04/74	06/75
	133	Field Data and Operating Time	AIF	639	919	178,344	0	0	279.09	MTBF Functional	Operational	05/83	04/85
	133	Field Data and Operating Time	AIF	1,558	0	178,344	0	0	114.46	MTBMA	Operational	05/83	04/85
	133	Field Data and Operating Time	AIF	408	353	173,620	0	0	425.53	MTBF Functional	Operational	05/83	04/85
	133	Field Data and Operating Time	AIF	761	0	173,620	0	0	228.14	MTBMA	Operational	05/83	04/85
	149	Analysis & Prediction Report	AI	0	0	0	0	0	1,412.00	MTBF Series	Development	11/71	05/75
	149	Demonstration Test Report	AIF	3	8	491	430	0	163.66	MTBF Series	Development	04/73	08/73
	149	Demonstration Test Report	AIF	2	5	2,846	2,304	0	1,423.00	MTBF Series	Development	02/74	01/75
	149	Simulated Operation	AIF	2	0	2,983	0	0	1,491.50	MTBF Series	Development	07/72	11/74
	149	Simulated Operation	AIF	2	0	2,127	0	0	1,063.50	MTBF Series	Production	04/74	06/75
	149	Field Data and Operating Time	AIF	244	455	178,344	0	0	730.91	MTBF Functional	Operational	05/83	04/85
	149	Field Data and Operating Time	AIF	699	0	178,344	0	0	255.14	MTBMA	Operational	05/83	04/85
	149	Field Data and Operating Time	AIF	168	223	173,620	0	0	1,033.45	MTBF Functional	Operational	05/83	04/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Controls/Displays, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
149	Field Data and Operating Time	AIF	391	0	175,620	0	0	444.04 MTBMA	Operational	05/83	04/85
218	Analysis & Prediction Report	AI	0	0	0	0	0	1,102.00 MTBF Series	Development	10/73	06/72
218	Demonstration Test Report	AIF	0	2	312	187	0	450.21 MTBF Series	Development	01/74	05/74
218	Demonstration Test Report	AIF	0	0	586	352	0	845.59 MTBF Series	Development	12/74	08/75
218	Demonstration Test Report	AIF	2	5	2,727	1,636	0	1,363.50 MTBF Series	Development	07/72	11/74
218	Simulated Operation	AIF	1	0	5,920	0	0	5,920.00 MTBF Series	Operational	05/83	04/85
218	Field Data and Operating Time	AIF	148	274	178,344	0	0	1,205.02 MTBF Functional	Operational	05/83	04/85
218	Field Data and Operating Time	AIF	422	0	178,344	0	0	422.61 MTBMA	Operational	05/83	04/85
218	Field Data and Operating Time	AIF	133	148	173,620	0	0	1,305.41 MTBF Functional	Operational	05/83	04/85
218	Field Data and Operating Time	AIF	281	0	173,620	0	0	617.86 MTBMA	Operational	05/83	04/85
223	Analysis & Prediction Report	AIA	0	0	0	0	0	1,976.00 MTBF Series	Development	03/75	06/76
223	Simulated Operation	AIA	2	28	1,325	0	0	662.50 MTBF Series	Development	06/83	05/85
223	Field Data and Operating Time	AIA	327	208	450,653	0	0	1,378.14 MTBF Functional	Operational	06/83	05/85
223	Field Data and Operating Time	AIA	535	0	450,653	0	0	842.34 MTBMA	Operational	07/83	06/85
354	Field Data and Operating Time	AIF	363	316	313,026	0	0	862.33 MTBF Functional	Operational	07/83	06/85
354	Field Data and Operating Time	AIF	679	0	313,026	0	0	461.01 MTBMA	Operational	07/83	06/85
354	Field Data and Operating Time	AIF	117	107	58,583	0	0	500.70 MTBF Functional	Operational	07/83	06/85
354	Field Data and Operating Time	AIF	224	0	58,583	0	0	261.53 MTBMA	Operational	07/83	06/85

Electronic Warfare,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
48	Analysis & Prediction Report	AU	0	0	0	0	0	1,354.00 MTBF Series	Development	07/72	11/74
48	Simulated Operation	AUF	1	0	310	0	0	310.00 MTBF Series	Development	01/77	06/77
48	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	07/77	12/77
48	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	01/78	06/78
48	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	07/78	12/78
48	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	05/83	04/85
48	Field Data and Operating Time	AUF	674	960	178,344	0	0	264.60 MTBF Functional	Operational	05/83	04/85
48	Field Data and Operating Time	AUF	1,634	0	178,344	0	0	109.14 MTBMA	Operational	05/83	04/85
48	Field Data and Operating Time	AUF	5,293	0	173,620	0	0	32.80 MTBMA	Operational	05/83	04/85
48	Field Data and Operating Time	AUF	1,404	3,889	173,620	0	0	123.66 MTBF Functional	Operational	05/83	04/85
62	Contract Spec/Requirement	AIF	0	0	0	0	0	131.00 MTBF Series	Development	02/75	03/75
62	Demonstration Test Report	AIF	4	13	0	0	0	0.00 MTBF Series	Development		

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## Electronic Warfare,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
62	Demonstration Test Report	AIF	3	5	0	0	0	0.00 MTBF Series	Development	03/75	03/75
62	Demonstration Test Report	AIF	4	13	925	661	0	231.25 MTBF Series	Development	03/75	06/75
62	Simulated Operation	AIF	9	0	210	0	0	23.33 MTBF Series	Development	07/72	11/74
62	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
62	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
62	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
62	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
62	Field Data and Operating Time	AIF	1,684	1,703	148,927	0	0	88.43 MTBF Functional	Operational	05/83	04/85
62	Field Data and Operating Time	AIF	3,387	0	148,927	0	0	43.97 MTBMA	Operational	05/83	04/85
62	Field Data and Operating Time	AIF	11,830	0	144,398	0	0	12.20 MTBMA	Operational	05/83	04/85
62	Field Data and Operating Time	AIF	3,962	7,868	144,398	0	0	36.44 MTBF Functional	Operational	05/83	04/85
72	Contract Spec/Requirement	AU	0	0	0	0	0	255.00 MTBF Series	Production		
72	Analysis & Prediction Report	AU	0	0	0	0	0	570.00 MTBF Series	Production		12/78
72	Demonstration Test Report	AU	2	17	916	549	2	458.00 MTBF Series	Production	08/78	01/79
72	Production Sample Verification	AU	2	9	956	573	2	478.00 MTBF Series	Production	04/79	10/79
72	Simulated Operation	AUF	16	0	687	0	0	42.93 MTBF Series	Development	07/72	11/74
72	Field Data and Operating Time	AU	56	0	9,275	0	0	165.62 MTBMA	Operational	04/77	02/78
72	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
72	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
72	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
72	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
72	Field Data and Operating Time	AUF	1,590	1,534	178,344	0	0	112.16 MTBF Functional	Operational	05/83	04/85
72	Field Data and Operating Time	AUF	3,124	0	178,344	0	0	57.08 MTBMA	Operational	05/83	04/85
72	Field Data and Operating Time	AUF	2,251	2,730	173,620	0	0	77.13 MTBF Functional	Operational	05/83	04/85
72	Field Data and Operating Time	AUF	4,981	0	173,620	0	0	34.85 MTBMA	Operational	05/83	04/85
282	Contract Spec/Requirement	AU	0	0	0	0	0	60.00 MTBF Series	Development		
282	Analysis & Prediction Report	AU	0	0	0	0	0	107.00 MTBF Series	Development		
282	Demonstration Test Report	AU	18	18	1,491	0	3	82.83 MTBF Series	Development	09/69	03/70
282	Production Sample Verification	AUF	28	17	932	0	16	33.28 MTBF Series	Production	09/70	02/71
282	Production Sample Verification	AUF	29	23	931	0	20	32.10 MTBF Series	Production	03/71	05/71
282	Production Sample Verification	AUF	31	37	911	0	19	29.38 MTBF Series	Production	04/71	09/71
282	Field Data and Operating Time	AUF	248	167	24,207	0	0	97.60 MTBF Functional	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	415	0	24,207	0	0	58.33 MTBMA	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	552	492	38,558	0	0	69.85 MTBF Functional	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	1,044	0	38,558	0	0	36.93 MTBMA	Operational	06/83	05/85

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
282	Field Data and Operating Time	AUF	612	1,151	39,991	0	0	65.34 MTBF Functional	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	1,763	0	39,991	0	0	22.68 MTBMA	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	994	834	43,935	0	0	44.20 MTBF Functional	Operational	06/83	05/85
282	Field Data and Operating Time	AUF	1,830	0	43,935	0	0	24.00 MTBMA	Operational	06/83	05/85
290	Contract Spec/Requirement	AU	0	0	0	0	0	17.00 MTBF Series	Development	06/83	05/85
290	Analysis & Prediction Report	AU	0	0	0	0	0	54.00 MTBF Series	Development		
290	Analysis & Prediction Report	AU	0	0	0	0	0	64.00 MTBF Series	Development		
290	Demonstration Test Report	AU	12	13	560	400	0	46.66 MTBF Series	Development	06/78	10/78
290	Field Data and Operating Time	AUF	184	396	303,981	0	0	1,652.07 MTBF Functional	Operational	05/83	04/85
290	Field Data and Operating Time	AUF	583	0	303,981	0	0	521.40 MTBMA	Operational	05/83	04/85
290	Field Data and Operating Time	AUF	10	33	53,220	0	0	5,322.00 MTBF Functional	Operational	05/83	04/85
290	Field Data and Operating Time	AUF	43	0	53,220	0	0	1,237.67 MTBMA	Operational	05/83	04/85
290	Field Data and Operating Time	AUF	48	435	154,753	0	0	3,224.02 MTBF Functional	Operational	07/83	06/85
290	Field Data and Operating Time	AUF	483	0	49,969	0	0	103.45 MTBMA	Operational	07/83	06/85
290	Field Data and Operating Time	AUF	650	2,319	235,870	0	0	362.87 MTBF Functional	Operational	07/83	06/85
290	Field Data and Operating Time	AUF	2,969	0	235,870	0	0	79.44 MTBMA	Operational	07/83	06/85
290	Field Data and Operating Time	AUF	253	840	49,969	0	0	197.50 MTBF Functional	Operational	07/83	06/85
290	Field Data and Operating Time	AUF	1,093	0	49,969	0	0	45.71 MTBMA	Operational	07/83	06/85
395	Field Data and Operating Time	AUF	0	0	0	0	0	175.00 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	4	12	13,740	0	0	3,435.00 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	16	0	13,740	0	0	858.75 MTBMA	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	978	807	39,991	0	0	40.89 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	1,785	0	39,991	0	0	22.40 MTBMA	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	912	613	38,558	0	0	42.27 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	1,525	0	38,558	0	0	25.28 MTBMA	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	679	488	24,207	0	0	35.65 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	1,167	0	24,207	0	0	20.74 MTBMA	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	1,184	1,016	43,935	0	0	37.10 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	2,200	0	43,935	0	0	19.97 MTBMA	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	939	840	39,513	0	0	42.07 MTBF Functional	Operational	06/83	05/85
395	Field Data and Operating Time	AUF	1,779	0	39,513	0	0	22.21 MTBMA	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Amplifier, RF

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
66	Demonstration Test Report	AUF	1	8	0	0	0	0.00 MTBF Series	Development	02/75	03/75
66	Demonstration Test Report	AUF	1	0	0	0	0	0.00 MTBF Series	Development	03/75	03/75
66	Demonstration Test Report	AUF	0	8	925	661	0	1,334.77 MTBF Series	Development	03/75	06/75
66	Simulated Operation	AUF	3	0	208	0	0	69.33 MTBF Series	Development	07/72	11/74
66	Field Data and Operating Time	AUF	214	75	148,927	0	0	695.92 MTBF Functional	Operational	05/83	04/85
66	Field Data and Operating Time	AUF	289	0	148,927	0	0	515.31 MTBF Functional	Operational	05/83	04/85
66	Field Data and Operating Time	AUF	840	0	144,398	0	0	171.90 MTBMA	Operational	05/83	04/85
66	Field Data and Operating Time	AUF	521	319	144,398	0	0	277.15 MTBF Functional	Operational	05/83	04/85
68	Demonstration Test Report	AUF	2	1	0	0	0	0.00 MTBF Series	Development	02/75	03/75
68	Demonstration Test Report	AUF	0	2	0	0	0	0.00 MTBF Series	Development	03/75	03/75
68	Demonstration Test Report	AUF	3	3	925	661	0	308.33 MTBF Series	Development	03/75	06/75
68	Simulated Operation	AUF	2	0	64	0	0	32.00 MTBF Series	Development	07/72	11/74
68	Field Data and Operating Time	AUF	400	189	148,927	0	0	372.31 MTBF Functional	Operational	05/83	04/85
68	Field Data and Operating Time	AUF	589	0	148,927	0	0	252.84 MTBMA	Operational	05/83	04/85
68	Field Data and Operating Time	AUF	1,031	733	144,398	0	0	140.05 MTBF Functional	Operational	05/83	04/85
68	Field Data and Operating Time	AUF	1,764	0	144,398	0	0	81.85 MTBMA	Operational	05/83	04/85
286	Analysis & Prediction Report	AUF	0	0	0	0	0	1,678.00 MTBF Series	Development		
286	Demonstration Test Report	AUF	0	3	1,490	0	0	2,150.07 MTBF Series	Development	09/69	03/70
286	Production Sample Verification	AUF	4	1	935	0	16	233.75 MTBF Series	Production	09/70	02/71
286	Production Sample Verification	AUF	4	2	929	0	20	232.25 MTBF Series	Production	03/71	04/71
286	Production Sample Verification	AUF	2	3	907	0	19	453.50 MTBF Series	Production	05/71	09/71
286	Field Data and Operating Time	AUF	32	23	24,207	0	0	756.46 MTBF Functional	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	55	0	24,207	0	0	440.12 MTBMA	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	52	55	38,558	0	0	741.50 MTBF Functional	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	107	0	38,558	0	0	360.35 MTBMA	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	60	85	39,991	0	0	666.51 MTBF Functional	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	145	0	39,991	0	0	275.80 MTBMA	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	96	103	43,935	0	0	457.65 MTBF Functional	Operational	06/83	05/85
286	Field Data and Operating Time	AUF	199	0	43,935	0	0	220.77 MTBMA	Operational	06/83	05/85
287	Analysis & Prediction Report	AUF	0	0	0	0	0	1,678.00 MTBF Series	Development		
287	Demonstration Test Report	AUF	7	4	1,490	0	0	212.85 MTBF Series	Development	09/69	03/70
287	Production Sample Verification	AUF	5	5	931	0	16	186.20 MTBF Series	Production	09/70	02/71
287	Production Sample Verification	AUF	8	5	934	0	20	116.75 MTBF Series	Production	03/71	04/71
287	Production Sample Verification	AUF	4	5	909	0	19	227.25 MTBF Series	Production	05/71	09/71
287	Field Data and Operating Time	AUF	36	22	24,207	0	0	672.41 MTBF Functional	Operational	06/83	05/85

# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Amplifier, RF

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
287	Field Data and Operating Time	AUF	58	0	24,207	0	0	417.36 MTBMA	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	93	55	38,558	0	0	414.60 MTBF Functional	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	148	0	38,558	0	0	260.52 MTBMA	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	94	99	39,991	0	0	425.43 MTBF Functional	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	193	0	39,991	0	0	207.20 MTBMA	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	155	112	43,935	0	0	283.45 MTBF Functional	Operational	06/83	05/85
287	Field Data and Operating Time	AUF	267	0	43,935	0	0	164.55 MTBMA	Operational	06/83	05/85
288	Analysis & Prediction Report	AUF	0	0	0	0	0	1,678.00 MTBF Series	Development	09/69	03/70
288	Demonstration Test Report	AUF	4	5	1,492	0	0	373.00 MTBF Series	Development	09/70	02/71
288	Production Sample Verification	AUF	5	2	931	0	16	186.20 MTBF Series	Production	03/71	04/71
288	Production Sample Verification	AUF	5	3	931	0	20	186.20 MTBF Series	Production	05/71	09/71
288	Production Sample Verification	AUF	8	6	917	0	19	114.62 MTBF Series	Production	06/83	05/85
288	Field Data and Operating Time	AUF	32	21	24,207	0	0	756.46 MTBF Functional	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	53	0	24,207	0	0	456.73 MTBMA	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	96	71	38,558	0	0	401.64 MTBF Functional	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	167	0	38,558	0	0	230.88 MTBMA	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	67	110	39,991	0	0	596.88 MTBF Functional	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	177	0	39,991	0	0	225.93 MTBMA	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	122	122	43,935	0	0	360.12 MTBF Functional	Operational	06/83	05/85
288	Field Data and Operating Time	AUF	244	0	43,935	0	0	180.06 MTBMA	Operational	06/83	05/85

Electronic Warfare, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
51	Analysis & Prediction Report	AU	0	0	0	0	0	666,666.00 MTBF Series	Development	07/72	11/74
51	Simulated Operation	AUF	0	0	310	0	0	447.33 MTBF Series	Development	05/83	04/85
51	Field Data and Operating Time	AUF	3	3	178,344	0	0	59,448.00 MTBF Functional	Operational	05/83	04/85
51	Field Data and Operating Time	AUF	6	0	178,344	0	0	29,724.00 MTBMA	Operational	05/83	04/85
51	Field Data and Operating Time	AUF	14	4	173,620	0	0	12,401.42 MTBF Functional	Operational	05/83	04/85
51	Field Data and Operating Time	AUF	18	0	173,620	0	0	9,645.55 MTBMA	Operational	05/83	04/85
52	Analysis & Prediction Report	AU	0	0	0	0	0	666,666.00 MTBF Series	Development	07/72	11/74
52	Simulated Operation	AUF	0	0	310	0	0	447.33 MTBF Series	Development	05/83	04/85
52	Field Data and Operating Time	AUF	4	2	178,344	0	0	44,586.00 MTBF Functional	Operational	05/83	04/85
52	Field Data and Operating Time	AUF	6	0	178,344	0	0	29,724.00 MTBMA	Operational	05/83	04/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
52	Field Data and Operating Time	AUF	29	0	173,620	0	0	5,986.89 MTBMA	Operational	05/83	04/85
52	Field Data and Operating Time	AUF	12	17	173,620	0	0	14,468.33 MTBF Functional	Operational	05/83	04/85
54	Analysis & Prediction Report	AU	0	0	0	0	0	500,000.00 MTBF Series	Development		
54	Simulated Operation	AUF	0	0	310	0	0	447.33 MTBF Series	Development	07/72	11/74
54	Field Data and Operating Time	AUF	25	44	178,344	0	0	7,133.76 MTBF Functional	Operational	05/83	04/85
54	Field Data and Operating Time	AUF	69	0	178,344	0	0	2,584.69 MTBMA	Operational	05/83	04/85
54	Field Data and Operating Time	AUF	21	39	173,620	0	0	8,267.61 MTBF Functional	Operational	05/83	04/85
54	Field Data and Operating Time	AUF	60	0	173,620	0	0	2,893.66 MTBMA	Operational	05/83	04/85
73	Contract Spec/Requirement	AUF	5	11	173,620	0	0	34,724.00 MTBM	Development	05/83	04/85
73	Analysis & Prediction Report	AU	0	0	0	0	0	26,525.00 MTBF Series	Production	05/83	04/85
73	Simulated Operation	AUF	1	0	4,106	0	0	4,106.00 MTBF Series	Development	07/72	11/74
73	Field Data and Operating Time	AUF	14	7	178,344	0	0	12,738.85 MTBF Functional	Operational	05/83	04/85
73	Field Data and Operating Time	AUF	21	0	178,344	0	0	8,492.57 MTBMA	Operational	05/83	04/85
73	Field Data and Operating Time	AUF	16	0	173,620	0	0	10,851.25 MTBMA	Operational	05/83	04/85
77	Analysis & Prediction Report	AU	0	0	0	0	0	26,385.00 MTBF Series	Production	05/83	04/85
77	Simulated Operation	AUF	1	0	651	0	0	651.00 MTBF Series	Development	07/72	11/74
77	Field Data and Operating Time	AUF	82	23	178,344	0	0	2,174.92 MTBF Functional	Operational	05/83	04/85
77	Field Data and Operating Time	AUF	105	0	178,344	0	0	1,698.51 MTBMA	Operational	05/83	04/85
77	Field Data and Operating Time	AUF	110	35	173,620	0	0	1,578.36 MTBF Functional	Operational	05/83	04/85
77	Field Data and Operating Time	AUF	145	0	173,620	0	0	1,197.37 MTBMA	Operational	05/83	04/85
78	Analysis & Prediction Report	AU	0	0	0	0	0	26,525.00 MTBF Series	Production	05/83	04/85
78	Simulated Operation	AUF	1	0	651	0	0	651.00 MTBF Series	Development	07/72	11/74
78	Field Data and Operating Time	AUF	107	0	178,344	0	0	1,666.76 MTBMA	Operational	05/83	04/85
78	Field Data and Operating Time	AUF	83	24	178,344	0	0	2,148.72 MTBF Functional	Operational	05/83	04/85
78	Field Data and Operating Time	AUF	91	36	173,620	0	0	1,907.91 MTBF Functional	Operational	05/83	04/85
78	Field Data and Operating Time	AUF	127	0	173,620	0	0	1,367.08 MTBMA	Operational	05/83	04/85
79	Analysis & Prediction Report	AU	0	0	0	0	0	26,525.00 MTBF Series	Production	05/83	04/85
79	Simulated Operation	AUF	0	0	651	0	0	939.39 MTBF Series	Development	07/72	11/74
79	Field Data and Operating Time	AUF	20	23	178,344	0	0	8,917.20 MTBF Functional	Operational	05/83	04/85
79	Field Data and Operating Time	AUF	43	0	178,344	0	0	4,147.53 MTBMA	Operational	05/83	04/85
79	Field Data and Operating Time	AUF	45	0	173,620	0	0	3,858.22 MTBF Functional	Operational	05/83	04/85
79	Field Data and Operating Time	AUF	27	18	173,620	0	0	6,430.37 MTBF Functional	Operational	05/83	04/85
80	Analysis & Prediction Report	AU	0	0	0	0	0	26,525.00 MTBF Series	Production	07/72	11/74
80	Simulated Operation	AUF	0	0	651	0	0	939.39 MTBF Series	Development	05/83	04/85
80	Field Data and Operating Time	AUF	60	0	178,344	0	0	2,972.40 MTBMA	Operational	05/83	04/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
80	Field Data and Operating Time	AUF	21	39	178,344	0	0	8,492.57 MTBF Functional	Operational	05/83	04/85
80	Field Data and Operating Time	AUF	23	52	173,620	0	0	7,548.69 MTBF Functional	Operational	05/83	04/85
80	Field Data and Operating Time	AUF	75	0	173,620	0	0	2,314.93 MTBMA	Operational	05/83	04/85
294	Analysis & Prediction Report	AU	0	0	0	0	0	4,606.00 MTBF Series	Development		
295	Analysis & Prediction Report	AU	0	0	0	0	0	4,343.00 MTBF Series	Development		
296	Analysis & Prediction Report	AU	0	0	0	0	0	16,220.00 MTBF Series	Development		
405	Analysis & Prediction Report	AUF	0	0	0	0	0	190,840.00 MTBF Series	Development		
405	Field Data and Operating Time	AUF	25	50	79,982	0	0	3,199.28 MTBF Functional	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	75	0	79,982	0	0	1,066.42 MTBMA	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	17	15	77,116	0	0	4,536.23 MTBF Functional	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	32	0	77,116	0	0	2,409.87 MTBMA	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	17	11	48,414	0	0	2,847.88 MTBF Functional	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	28	0	48,414	0	0	1,729.07 MTBMA	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	34	22	87,870	0	0	2,584.41 MTBF Functional	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	56	0	87,870	0	0	1,569.10 MTBMA	Operational	06/83	05/85
405	Field Data and Operating Time	AUF	14	26	79,026	0	0	5,644.71 MTBF Functional	Operational	06/83	05/85
406	Analysis & Prediction Report	AUF	0	0	0	0	0	34,868.00 MTBF Series	Development		
405	Field Data and Operating Time	AUF	4	1	39,991	0	0	9,997.75 MTBF Functional	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	5	0	39,991	0	0	7,998.20 MTBMA	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	10	1	38,558	0	0	3,855.80 MTBF Functional	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	11	0	38,558	0	0	3,505.27 MTBMA	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	3	2	24,207	0	0	8,069.00 MTBF Functional	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	5	0	24,207	0	0	4,841.40 MTBMA	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	4	1	43,935	0	0	10,983.75 MTBF Functional	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	5	0	43,935	0	0	8,787.00 MTBMA	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	6	10	39,513	0	0	6,585.50 MTBF Functional	Operational	06/83	05/85
406	Field Data and Operating Time	AUF	16	0	39,513	0	0	2,469.56 MTBMA	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Cooling/Press./Vacuum

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
				OPERATE	NON-OP				START	END
299	Analysis & Prediction Report	AU	0	0	0	0	50,000.00 MTBF Series	Development		
300	Analysis & Prediction Report	AU	0	0	0	0	50,000.00 MTBF Series	Development		

Electronic Warfare, Filter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
				OPERATE	NON-OP				START	END
45	Contract Spec/Requirement	AUF	0	0	0	0	1,000.00 MTBF Series	Production		
45	Contract Spec/Requirement	AUF	0	0	0	0	1,000.00 MTBF Series	Development		
45	Analysis & Prediction Report	AU	0	0	0	0	4,714.00 MTBF Series	Development		
45	Demonstration Test Report	AUF	6	7,881	3,940	0	1,313.50 MTBF Series	Development	12/72	09/73
45	Production Sample Verification	AUF	3	5,031	1,260	0	1,677.00 MTBF Series	Production	04/75	08/75
45	Production Sample Verification	AUF	3	4,286	2,143	0	1,428.66 MTBF Series	Production	06/76	01/77
45	Production Sample Verification	AUF	0	2,219	1,110	0	3,202.02 MTBF Series	Production	01/77	03/77
45	Production Sample Verification	AUF	0	2,210	1,105	0	3,189.03 MTBF Series	Production	03/77	06/77
45	Simulated Operation	AUF	1	4,106	0	0	4,106.00 MTBF Series	Development	07/72	11/74
45	Simulated Operation	AUF	1	2,450	0	0	2,450.00 MTBF Series	Development	04/74	06/75
45	Field Data and Operating Time	AUF	11	24,470	0	203	2,224.54 MTBM	Operational	07/77	12/77
45	Field Data and Operating Time	AUF	1	30,705	0	269	30,705.00 MTBM	Operational	01/78	06/78
45	Field Data and Operating Time	AUF	1	37,453	0	296	37,453.00 MTBM	Operational	07/78	12/78
45	Field Data and Operating Time	AUF	5	18,044	0	161	3,608.80 MTBM	Operational	01/77	06/77
45	Field Data and Operating Time	AUF	270	178,344	0	0	660.53 MTBMA	Operational	05/83	04/85
45	Field Data and Operating Time	AUF	111	178,344	0	0	1,606.70 MTBF Functional	Operational	05/83	04/85
45	Field Data and Operating Time	AUF	76	173,620	0	0	2,284.47 MTBF Functional	Operational	05/83	04/85
45	Field Data and Operating Time	AUF	201	173,620	0	0	863.78 MTBMA	Operational	05/83	04/85
356	Contract Spec/Requirement	AUF	0	0	0	0	1,500.00 MTBF Series	Development		
356	Analysis & Prediction Report	AUF	0	0	0	0	23,068.00 MTBF Series	Development		
356	Field Data and Operating Time	AUF	188	303,981	0	0	1,616.92 MTBF Functional	Operational	05/83	04/85
356	Field Data and Operating Time	AUF	373	303,981	0	0	814.96 MTBMA	Operational	05/83	04/85
356	Field Data and Operating Time	AUF	47	53,220	0	0	1,132.34 MTBF Functional	Operational	05/83	04/85
356	Field Data and Operating Time	AUF	85	53,220	0	0	626.11 MTBMA	Operational	05/83	04/85
402	Analysis & Prediction Report	AUF	0	0	0	0	999,999.00 MTBF Series	Development		
402	Field Data and Operating Time	AUF	0	38,558	0	0	55,639.24 MTBF Functional	Operational	06/83	05/85
402	Field Data and Operating Time	AUF	0	38,558	0	0	55,639.24 MTBMA	Operational	06/83	05/85
402	Field Data and Operating Time	AUF	3	39,991	0	0	13,330.33 MTBF Functional	Operational	06/83	05/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Electronic Warfare, Filter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END

402	Field Data and Operating Time	AUF	3	0	39,991	0	0	13,330.33 MTBMA	Operational	06/83	05/85
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### Electronic Warfare, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END

60	Analysis & Prediction Report	AU	0	0	0	0	0	41,913.00 MTBF Series	Development	01/74	05/74
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60	Demonstration Test Report	AUF	0	0	1,856	1,290	0	2,678.21 MTBF Series	Development	07/72	11/74
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60	Simulated Operation	AUF	0	0	310	0	0	447.33 MTBF Series	Development	05/83	04/85
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60	Field Data and Operating Time	AUF	3	2	178,344	0	0	59,448.00 MTBF Functional	Operational	05/83	04/85
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60	Field Data and Operating Time	AUF	5	0	178,344	0	0	35,668.80 MTBMA	Operational	05/83	04/85
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60	Field Data and Operating Time	AUF	7	0	173,620	0	0	24,802.85 MTBMA	Operational	05/83	04/85
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60	Field Data and Operating Time	AUF	2	5	173,620	0	0	86,810.00 MTBF Functional	Operational	05/83	04/85
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74	Analysis & Prediction Report	AI	0	0	0	0	0	103,093.00 MTBF Series	Production	08/78	01/79
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74	Demonstration Test Report	AI	0	0	916	549	2	1,321.78 MTBF Series	Production	04/79	10/79
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74	Production Sample Verification	AI	0	0	956	573	2	1,379.50 MTBF Series	Production	07/72	11/74
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74	Simulated Operation	AIF	1	0	651	0	0	651.00 MTBF Series	Development	05/83	04/85
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74	Field Data and Operating Time	AIF	75	16	178,344	0	0	2,377.92 MTBF Functional	Operational	05/83	04/85
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74	Field Data and Operating Time	AIF	91	0	178,344	0	0	1,959.82 MTBMA	Operational	05/83	04/85
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74	Field Data and Operating Time	AIF	68	25	173,620	0	0	2,553.23 MTBF Functional	Operational	05/83	04/85
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74	Field Data and Operating Time	AIF	93	0	173,620	0	0	1,866.88 MTBMA	Operational	05/83	04/85
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75	Analysis & Prediction Report	AI	0	0	0	0	0	303,030.00 MTBF Series	Production	08/78	01/79
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75	Demonstration Test Report	AI	0	0	916	549	2	1,321.78 MTBF Series	Production	04/79	10/79
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75	Production Sample Verification	AI	0	0	956	573	0	1,379.50 MTBF Series	Production	07/72	11/74
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75	Simulated Operation	AIF	0	0	651	0	0	939.39 MTBF Series	Development	05/83	04/85
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75	Field Data and Operating Time	AIF	22	17	178,344	0	0	8,106.54 MTBF Functional	Operational	05/83	04/85
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75	Field Data and Operating Time	AIF	39	0	178,344	0	0	4,572.92 MTBMA	Operational	05/83	04/85
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75	Field Data and Operating Time	AIF	123	88	173,620	0	0	1,411.54 MTBF Functional	Operational	05/83	04/85
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75	Field Data and Operating Time	AIF	211	0	173,620	0	0	822.84 MTBMA	Operational	05/83	04/85
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76	Analysis & Prediction Report	AI	0	0	0	0	0	7,318.00 MTBF Series	Production	08/78	01/79
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76	Demonstration Test Report	AI	0	0	916	549	2	1,321.78 MTBF Series	Production	04/79	10/79
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76	Production Sample Verification	AI	0	0	956	573	2	1,379.50 MTBF Series	Production	07/72	11/74
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76	Simulated Operation	AIF	1	0	574	0	0	574.00 MTBF Series	Development	05/83	04/85
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76	Field Data and Operating Time	AIF	144	77	178,344	0	0	1,238.50 MTBF Functional	Operational	05/83	04/85
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76	Field Data and Operating Time	AIF	221	0	178,344	0	0	806.98 MTBMA	Operational	05/83	04/85
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## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
76	Field Data and Operating Time	AIF	163	86	173,620	0	0	1,065.15 MTBF Functional	Operational	05/83	04/85
76	Field Data and Operating Time	AIF	249	0	173,620	0	0	697.26 MTBMA	Operational	05/83	04/85
289	Analysis & Prediction Report	AIF	0	0	0	0	0	15,752.00 MTBF Series	Development	09/69	03/70
289	Demonstration Test Report	AIF	1	0	1,491	0	0	1,491.00 MTBF Series	Development	09/70	02/71
289	Production Sample Verification	AIF	0	1	932	0	16	1,344.87 MTBF Series	Production	03/71	04/71
289	Production Sample Verification	AIF	0	0	931	0	20	1,343.43 MTBF Series	Production	05/71	09/71
289	Production Sample Verification	AIF	0	0	911	0	19	1,314.57 MTBF Series	Production	06/83	05/85
289	Field Data and Operating Time	AIF	37	19	24,207	0	0	654.24 MTBF Functional	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	56	0	24,207	0	0	432.26 MTBMA	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	65	55	38,558	0	0	593.20 MTBF Functional	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	120	0	38,558	0	0	321.31 MTBMA	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	110	102	39,991	0	0	363.55 MTBF Functional	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	212	0	39,991	0	0	188.63 MTBMA	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	153	110	43,935	0	0	287.15 MTBF Functional	Operational	06/83	05/85
289	Field Data and Operating Time	AIF	263	0	43,935	0	0	167.05 MTBMA	Operational	06/83	05/85
297	Analysis & Prediction Report	AI	0	0	0	0	0	800.00 MTBF Series	Development	06/78	10/78
297	Demonstration Test Report	AI	1	5	560	400	0	560.00 MTBF Series	Development	06/83	05/85
396	Analysis & Prediction Report	AIF	0	0	0	0	0	2,080.00 MTBF Series	Development	06/83	05/85
396	Field Data and Operating Time	AIF	3	4	13,740	0	0	4,580.00 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	7	0	13,740	0	0	1,962.85 MTBMA	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	268	57	39,991	0	0	149.22 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	325	0	39,991	0	0	123.04 MTBMA	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	171	40	38,558	0	0	225.48 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	211	0	38,558	0	0	182.73 MTBMA	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	93	25	24,207	0	0	260.29 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	118	0	24,207	0	0	205.14 MTBMA	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	161	52	43,935	0	0	272.88 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	213	0	43,935	0	0	206.26 MTBMA	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	146	56	39,513	0	0	270.63 MTBF Functional	Operational	06/83	05/85
396	Field Data and Operating Time	AIF	202	0	39,513	0	0	195.60 MTBMA	Operational	06/83	05/85
397	Analysis & Prediction Report	AIF	0	0	0	0	0	17,062.00 MTBF Series	Development	06/83	05/85
397	Field Data and Operating Time	AIF	0	1	13,740	0	0	19,826.83 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	1	0	13,740	0	0	13,740.00 MTBMA	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	43	13	39,991	0	0	930.02 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	56	0	39,991	0	0	714.12 MTBMA	Operational	06/83	05/85

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## Electronic Warfare, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
397	Field Data and Operating Time	AIF	51	26	38,558	0	0	756.03 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	77	0	38,558	0	0	500.75 MTBMA	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	36	18	24,207	0	0	672.41 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	54	0	24,207	0	0	448.27 MTBMA	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	53	15	43,935	0	0	828.96 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	68	0	43,935	0	0	646.10 MTBMA	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	72	26	39,513	0	0	548.79 MTBF Functional	Operational	06/83	05/85
397	Field Data and Operating Time	AIF	98	0	39,513	0	0	403.19 MTBMA	Operational	06/83	05/85

## Electronic Warfare, Interconnect/Distribute

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
298	Analysis & Prediction Report	AU	0	0	0	0	0	50,000.00 MTBF Series	Development	06/83	05/85
400	Analysis & Prediction Report	AUF	0	0	0	0	0	387,597.00 MTBF Series	Development	06/83	05/85
400	Field Data and Operating Time	AUF	0	0	39,991	0	0	57,707.07 MTBF Functional	Operational	06/83	05/85
400	Field Data and Operating Time	AUF	0	0	39,991	0	0	57,707.07 MTBMA	Operational	06/83	05/85
401	Analysis & Prediction Report	AUF	0	0	0	0	0	324,675.00 MTBF Series	Development	06/83	05/85
401	Field Data and Operating Time	AUF	0	0	79,982	0	0	115,414.14 MTBF Functional	Operational	06/83	05/85
401	Field Data and Operating Time	AUF	0	0	79,982	0	0	115,414.14 MTBMA	Operational	06/83	05/85

## Electronic Warfare, Miscellaneous

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
404	Analysis & Prediction Report	AUF	0	0	0	0	0	37,930.00 MTBF Series	Development	06/83	05/85
404	Field Data and Operating Time	AUF	0	0	13,740	0	0	19,826.83 MTBF Functional	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	0	0	13,740	0	0	19,826.83 MTBMA	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	18	14	39,991	0	0	2,221.72 MTBF Functional	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	32	0	39,991	0	0	1,249.71 MTBMA	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	18	31	38,558	0	0	2,142.11 MTBF Functional	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	49	0	38,558	0	0	786.89 MTBF Functional	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	16	13	24,207	0	0	1,512.93 MTBF Functional	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	29	0	24,207	0	0	834.72 MTBMA	Operational	06/83	05/85
404	Field Data and Operating Time	AUF	18	19	43,935	0	0	2,440.83 MTBF Functional	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## Electronic Warfare, Miscellaneous

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
404	AUF	Field Data and Operating Time	37	0	43,935	0	0	1,187.43 MTBMA	Operational	06/83	05/85
404	AUF	Field Data and Operating Time	27	20	39,513	0	0	1,463.44 MTBF Functional	Operational	06/83	05/85
404	AUF	Field Data and Operating Time	47	0	39,513	0	0	840.70 MTBMA	Operational	06/83	05/85

## Electronic Warfare, Mux/Demux

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
56	AIF	Analysis & Prediction Report	0	0	0	0	0	400,000.00 MTBF Series	Development	07/72	11/74
56	AIF	Simulated Operation	0	0	310	0	0	447.33 MTBF Series	Development	05/83	04/85
56	AIF	Field Data and Operating Time	2	3	178,344	0	0	89,172.00 MTBF Functional	Operational	05/83	04/85
56	AIF	Field Data and Operating Time	5	0	178,344	0	0	35,668.80 MTBMA	Operational	05/83	04/85
56	AIF	Field Data and Operating Time	7	0	173,620	0	0	24,802.85 MTBMA	Operational	05/83	04/85
56	AIF	Field Data and Operating Time	2	5	173,620	0	0	86,810.00 MTBF Functional	Operational	05/83	04/85

## Electronic Warfare, Power Supply

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
81	AUF	Analysis & Prediction Report	0	0	0	0	0	6,943.00 MTBF Series	Production	07/72	12/78
81	AUF	Simulated Operation	0	0	651	0	0	939.39 MTBF Series	Development	07/72	11/74
81	AUF	Field Data and Operating Time	204	87	178,344	0	0	874.23 MTBF Functional	Operational	05/83	04/85
81	AUF	Field Data and Operating Time	291	0	178,344	0	0	612.86 MTBMA	Operational	05/83	04/85
81	AUF	Field Data and Operating Time	229	92	173,620	0	0	758.16 MTBF Functional	Operational	05/83	04/85
81	AUF	Field Data and Operating Time	321	0	173,620	0	0	540.87 MTBMA	Operational	05/83	04/85

## Electronic Warfare, Receiver

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
82	AUF	Analysis & Prediction Report	0	0	0	0	0	959.00 MTBF Series	Production	12/78	
82	AUF	Demonstration Test Report	0	12	916	549	2	1,321.78 MTBF Series	Production	08/78	01/79
82	AUF	Production Sample Verification	2	0	956	573	2	478.00 MTBF Series	Production	04/79	10/79
82	AUF	Simulated Operation	7	0	651	0	0	93.00 MTBF Series	Development	07/72	11/74
82	AUF	Field Data and Operating Time	499	277	178,344	0	0	357.40 MTBF Functional	Operational	05/83	04/85

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Receiver

EQUIP ID	DATA SOURCE	APP ENV	APP RELEVANT	FAILURES NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
82	Field Data and Operating Time	AUF	776	0	178,344	0	0	229.82 MTBMA	Operational	05/83	04/85
82	Field Data and Operating Time	AUF	513	360	173,620	0	0	338.44 MTBF Functional	Operational	05/83	04/85
82	Field Data and Operating Time	AUF	873	0	173,620	0	0	198.87 MTBMA	Operational	05/83	04/85
83	Analysis & Prediction Report	AU	0	0	0	0	0	4,417.00 MTBF Series	Production		12/78
83	Demonstration Test Report	AU	1	1	916	549	2	916.00 MTBF Series	Production	08/78	01/79
83	Production Sample Verification	AU	0	3	956	573	2	1,379.50 MTBF Series	Production	04/79	10/79
83	Simulated Operation	AUF	3	0	687	0	0	229.00 MTBF Series	Development	07/72	11/74
83	Field Data and Operating Time	AUF	205	76	178,344	0	0	869.97 MTBF Functional	Operational	05/83	04/85
83	Field Data and Operating Time	AUF	281	0	178,344	0	0	634.67 MTBMA	Operational	05/83	04/85
83	Field Data and Operating Time	AUF	407	153	173,620	0	0	426.58 MTBF Functional	Operational	05/83	04/85
83	Field Data and Operating Time	AUF	560	0	173,620	0	0	310.03 MTBMA	Operational	05/83	04/85
283	Analysis & Prediction Report	AUF	0	0	0	0	0	408.00 MTBF Series	Development	06/69	04/70
283	Demonstration Test Report	AUF	2	1	1,490	0	0	745.00 MTBF Series	Development	09/69	03/70
283	Production Sample Verification	AUF	6	6	935	0	16	155.83 MTBF Series	Production	09/70	02/71
283	Production Sample Verification	AUF	2	4	929	0	20	464.50 MTBF Series	Production	03/71	05/71
283	Production Sample Verification	AUF	10	10	907	0	19	90.70 MTBF Series	Production	04/71	09/71
283	Field Data and Operating Time	AUF	24	4	24,207	0	0	1,008.62 MTBF Functional	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	28	0	24,207	0	0	864.53 MTBMA	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	27	11	38,558	0	0	1,428.07 MTBF Functional	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	38	0	38,558	0	0	1,014.68 MTBMA	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	38	12	39,991	0	0	1,052.39 MTBF Functional	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	50	0	39,991	0	0	799.82 MTBMA	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	29	23	43,935	0	0	1,515.00 MTBF Functional	Operational	06/83	05/85
283	Field Data and Operating Time	AUF	31	0	43,935	0	0	1,417.25 MTBMA	Operational	06/83	05/85
284	Analysis & Prediction Report	AUF	0	0	0	0	0	408.00 MTBF Series	Development	06/69	04/70
284	Demonstration Test Report	AUF	3	4	1,490	0	0	496.66 MTBF Series	Development	09.69	03/70
284	Production Sample Verification	AUF	4	3	931	0	16	232.75 MTBF Series	Production	09/70	02/71
284	Production Sample Verification	AUF	7	7	934	0	20	133.42 MTBF Series	Production	03/71	05/71
284	Production Sample Verification	AUF	3	6	909	0	19	303.00 MTBF Series	Production	04/71	09/71
284	Field Data and Operating Time	AUF	31	20	24,207	0	0	780.87 MTBF Functional	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	51	0	24,207	0	0	474.64 MTBMA	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	87	100	38,558	0	0	443.19 MTBF Functional	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	187	0	38,558	0	0	206.19 MTBMA	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	114	103	39,991	0	0	350.79 MTBF Functional	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	217	0	39,991	0	0	184.29 MTBMA	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE				START	END
284	Field Data and Operating Time	AUF	181	128	43,935	0	0	0	242.73 MTBF Functional	Operational	06/83	05/85
284	Field Data and Operating Time	AUF	309	0	43,935	0	0	0	142.18 MTBMA	Operational	06/83	05/85
285	Analysis & Prediction Report	AUF	0	0	0	0	0	0	408.00 MTBF Series	Development	06/69	04/70
285	Demonstration Test Report	AUF	1	1	1,492	0	0	0	1,492.00 MTBF Series	Development	09/69	03/70
285	Production Sample Verification	AUF	4	0	931	0	16	0	232.75 MTBF Series	Production	09/70	02/71
285	Production Sample Verification	AUF	3	2	931	0	20	0	310.33 MTBF Series	Production	03/71	05/71
285	Production Sample Verification	AUF	4	7	917	0	19	0	229.25 MTBF Series	Production	04/71	09/71
285	Field Data and Operating Time	AUF	31	25	24,207	0	0	0	780.87 MTBF Functional	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	56	0	24,207	0	0	0	432.26 MTBMA	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	94	98	38,558	0	0	0	410.19 MTBF Functional	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	192	0	38,558	0	0	0	200.82 MTBMA	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	97	120	39,991	0	0	0	412.27 MTBF Functional	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	217	0	39,991	0	0	0	184.29 MTBMA	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	170	138	43,935	0	0	0	258.44 MTBF Functional	Operational	06/83	05/85
285	Field Data and Operating Time	AUF	308	0	43,935	0	0	0	142.64 MTBMA	Operational	06/83	05/85
398	Analysis & Prediction Report	AUF	0	0	0	0	0	0	1,164.00 MTBF Series	Development	06/83	05/85
398	Field Data and Operating Time	AUF	0	0	13,740	0	0	0	19,826.83 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	0	0	13,740	0	0	0	19,826.83 MTBMA	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	93	78	39,991	0	0	0	430.01 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	171	0	39,991	0	0	0	233.86 MTBMA	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	87	35	38,558	0	0	0	443.19 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	122	0	38,558	0	0	0	316.04 MTBMA	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	82	44	24,207	0	0	0	295.20 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	126	0	24,207	0	0	0	192.11 MTBMA	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	147	97	43,925	0	0	0	298.80 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	244	0	43,925	0	0	0	180.02 MTBMA	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	117	63	39,513	0	0	0	337.71 MTBF Functional	Operational	06/83	05/85
398	Field Data and Operating Time	AUF	180	0	39,513	0	0	0	219.51 MTBMA	Operational	06/83	05/85
399	Analysis & Prediction Report	AUF	0	0	0	0	0	0	354.00 MTBF Series	Development	06/83	05/85
399	Field Data and Operating Time	AUF	0	1	13,740	0	0	0	19,826.83 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	1	0	13,740	0	0	0	13,740.00 MTBMA	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	280	217	39,991	0	0	0	142.82 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	497	0	39,991	0	0	0	80.46 MTBMA	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	278	137	38,558	0	0	0	138.69 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	415	0	38,558	0	0	0	92.91 MTBMA	Operational	06/83	05/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Electronic Warfare, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
399	Field Data and Operating Time	AUF	185	80	24,207	0	0	130.84 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	265	0	24,207	0	0	91.34 MTBMA	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	345	280	43,935	0	0	127.34 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	625	0	43,935	0	0	70.29 MTBMA	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	283	169	39,513	0	0	139.62 MTBF Functional	Operational	06/83	05/85
399	Field Data and Operating Time	AUF	452	0	39,513	0	0	87.41 MTBMA	Operational	06/83	05/85

### Electronic Warfare, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
69	Demonstration Test Report	AIF	0	6	0	0	0	0.00 MTBF Series	Development	02/75	03/75
69	Demonstration Test Report	AIF	2	1	0	0	0	0.00 MTBF Series	Development	03/75	03/75
69	Demonstration Test Report	AIF	4	12	925	661	0	231.25 MTBF Series	Development	03/75	06/75
69	Simulated Operation	AIF	2	0	210	0	0	105.00 MTBF Series	Development	07/72	11/74
69	Field Data and Operating Time	AIF	231	83	148,927	0	0	644.70 MTBF Functional	Operational	05/83	04/85
69	Field Data and Operating Time	AIF	314	0	148,927	0	0	474.28 MTBMA	Operational	05/83	04/85
69	Field Data and Operating Time	AIF	540	320	144,398	0	0	267.40 MTBF Functional	Operational	05/83	04/85
69	Field Data and Operating Time	AIF	860	0	144,398	0	0	167.90 MTBMA	Operational	05/83	04/85
71	Demonstration Test Report	AIF	1	1	0	0	0	0.00 MTBF Series	Development	02/75	03/75
71	Demonstration Test Report	AIF	0	0	0	0	0	0.00 MTBF Series	Development	03/75	03/75
71	Demonstration Test Report	AIF	2	8	925	661	0	462.50 MTBF Series	Development	03/75	06/75
71	Simulated Operation	AIF	2	0	64	0	0	32.00 MTBF Series	Development	07/72	11/74
71	Field Data and Operating Time	AIF	713	0	148,927	0	0	208.87 MTBMA	Operational	05/83	04/85
71	Field Data and Operating Time	AIF	557	156	148,927	0	0	267.37 MTBF Functional	Operational	05/83	04/85
71	Field Data and Operating Time	AIF	1,276	685	144,398	0	0	113.16 MTBF Functional	Operational	05/83	04/85
71	Field Data and Operating Time	AIF	1,961	0	144,398	0	0	73.63 MTBMA	Operational	05/83	04/85
403	Contract Spec/Requirement	AUF	0	0	0	0	0	345.00 MTBF Series	Development		
403	Analysis & Prediction Report	AUF	0	0	0	0	0	701.00 MTBF Series	Development		
403	Demonstration Test Report	AUF	1	0	1,012	0	0	1,012.00 MTBF Series	Development		
403	Field Data and Operating Time	AUF	0	0	13,740	0	0	19,826.83 MTBF Functional	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	0	0	13,740	0	0	19,826.83 MTBMA	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	137	185	39,991	0	0	291.90 MTBF Functional	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	321	0	39,991	0	0	124.58 MTBMA	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	88	85	38,558	0	0	438.15 MTBF Functional	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Electronic Warfare, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
403	Field Data and Operating Time	AUF	173	0	38,558	0	0	222.87 MTBMA	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	98	87	24,207	0	0	247.01 MTBF Functional	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	185	0	24,207	0	0	130.84 MTBMA	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	194	268	43,935	0	0	226.46 MTBF Functional	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	462	0	43,935	0	0	95.09 MTBMA	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	171	234	39,513	0	0	231.07 MTBF Functional	Operational	06/83	05/85
403	Field Data and Operating Time	AUF	405	0	39,513	0	0	97.56 MTBMA	Operational	06/83	05/85

Electronic Warfare, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
58	Analysis & Prediction Report	AUF	0	0	0	0	0	1,415.00 MTBF Series	Development	01/74	09/72
58	Demonstration Test Report	AUF	0	4	1,806	1,255	0	2,606.06 MTBF Series	Development	01/74	05/74
58	Simulated Operation	AUF	1	0	310	0	0	310.00 MTBF Series	Development	07/72	11/74
58	Field Data and Operating Time	AUF	506	267	178,344	0	0	352.45 MTBF Functional	Operational	05/83	04/85
58	Field Data and Operating Time	AUF	773	0	178,344	0	0	230.71 MTBMA	Operational	05/83	04/85
58	Field Data and Operating Time	AUF	1,923	0	173,620	0	0	90.28 MTBMA	Operational	05/83	04/85
58	Field Data and Operating Time	AUF	843	1,080	173,620	0	0	205.95 MTBF Functional	Operational	05/83	04/85
268	Contract Spec/Requirement	AUF	0	0	0	0	0	150.00 MTBF Series	Production		
268	Allocation/Portion	AUF	0	0	0	0	0	200.00 MTBF Series	Production		
268	Analysis & Prediction Report	AUF	0	0	0	0	0	204.00 MTBF Series	Production		
268	Production Sample Verification	AUF	6	7	450	104	0	75.00 MTBF Series	Production	11/73	12/73
268	Production Sample Verification	AUF	4	0	750	173	15	187.50 MTBF Series	Production	05/74	06/74
268	Production Sample Verification	AUF	2	1	300	69	0	150.00 MTBF Series	Production	07/74	09/74
268	Production Sample Verification	AUF	4	4	850	196	17	212.50 MTBF Series	Production	09/74	11/74
268	Production Sample Verification	AUF	10	12	1,200	277	24	120.00 MTBF Series	Production	12/74	12/74
268	Production Sample Verification	AUF	5	3	750	173	15	150.00 MTBF Series	Production	01/75	01/75
268	Production Sample Verification	AUF	0	0	250	58	0	360.75 MTBF Series	Production	02/75	02/75
268	Production Sample Verification	AUF	6	12	1,250	288	25	208.33 MTBF Series	Production	03/75	04/75
268	Production Sample Verification	AUF	6	11	1,250	288	25	208.33 MTBF Series	Production	04/75	04/75
268	Production Sample Verification	AUF	12	4	1,050	242	21	87.50 MTBF Series	Production	05/75	05/75
268	Production Sample Verification	AUF	8	8	1,300	300	26	162.50 MTBF Series	Production	06/75	06/75
268	Production Sample Verification	AUF	14	16	1,600	369	32	114.28 MTBF Series	Production	07/75	07/75
268	Production Sample Verification	AUF	6	11	850	196	17	141.66 MTBF Series	Production	09/75	09/75

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Electronic Warfare, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
268	Production Sample Verification	AUF	9	27	1,000	231	20	111.11 MTBF Series	Production	10/75	10/75
268	Production Sample Verification	AUF	1	0	450	104	0	450.00 MTBF Series	Production	06/74	07/74
268	Production Sample Verification	AUF	2	4	500	115	10	250.00 MTBF Series	Production	11/75	11/75
268	Production Sample Verification	AUF	6	9	850	196	17	141.66 MTBF Series	Production	12/75	12/75
268	Production Sample Verification	AUF	2	1	200	46	0	100.00 MTBF Series	Production	01/76	01/76
268	Production Sample Verification	AUF	2	6	350	81	0	175.00 MTBF Series	Production	02/76	02/76
268	Production Sample Verification	AUF	0	7	300	69	0	432.90 MTBF Series	Production	03/76	03/76
268	Production Sample Verification	AUF	4	3	550	127	11	137.50 MTBF Series	Production	04/76	04/76
268	Production Sample Verification	AUF	8	9	950	219	19	118.75 MTBF Series	Production	05/76	05/76
268	Production Sample Verification	AUF	8	21	1,250	288	25	156.25 MTBF Series	Production	09/73	11/73
281	Production Sample Verification	AUF	1	2	250	58	0	250.00 MTBF Series	Production	08/76	08/76
281	Production Sample Verification	AUF	3	8	600	138	12	200.00 MTBF Series	Production	09/76	09/76
281	Production Sample Verification	AUF	10	7	1,100	254	22	110.00 MTBF Series	Production	10/76	10/76
281	Production Sample Verification	AUF	5	11	1,150	265	23	230.00 MTBF Series	Production	11/76	11/76
281	Production Sample Verification	AUF	4	7	950	219	19	237.50 MTBF Series	Production	12/76	12/76
281	Production Sample Verification	AUF	8	14	1,200	277	24	150.00 MTBF Series	Production	01/77	01/77
281	Production Sample Verification	AUF	8	4	1,300	300	26	162.50 MTBF Series	Production	02/77	02/77
281	Production Sample Verification	AUF	9	4	1,250	288	25	138.88 MTBF Series	Production	03/77	03/77
281	Production Sample Verification	AUF	9	12	1,550	358	31	172.22 MTBF Series	Production	04/77	04/77

### Electronic Warfare, Transmitter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
291	Analysis & Prediction Report	AU	0	0	0	0	0	238.00 MTBF Series	Development	06/78	10/78
291	Demonstration Test Report	AU	5	3	560	400	0	112.00 MTBF Series	Development	06/78	10/78
292	Analysis & Prediction Report	AU	0	0	0	0	0	186.00 MTBF Series	Development	06/78	10/78
292	Demonstration Test Report	AU	4	4	560	400	0	140.00 MTBF Series	Development	06/78	10/78
293	Analysis & Prediction Report	AU	0	0	0	0	0	237.00 MTBF Series	Development	06/78	10/78
293	Demonstration Test Report	AU	2	1	560	400	0	280.00 MTBF Series	Development	06/78	10/78

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

## RELIABILITY DATA

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
25	Contract Spec/Requirement	AU	0	0	0	0	0	500.00 MTBF Series	Development		
25	Analysis & Prediction Report	AU	0	0	0	0	0	1,336.00 MTBF Series	Development		
25	Demonstration Test Report	AU	7	10	7,127	4,287	10	1,018.14 MTBF Series	Development	01/76	03/76
25	Simulated Operation	AU	5	0	3,024	0	19	604.80 MTBF Series	Development	01/76	04/76
25	Simulated Operation	AU	42	0	2,439	0	19	58.07 MTBMA	Development	01/76	04/76
25	Field Data and Operating Time	AIC	159	165	98,190	0	0	617.54 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	324	0	98,190	0	0	303.05 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	899	923	1,022,625	0	0	1,137.51 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	1,822	0	1,022,625	0	0	561.26 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	136	124	97,060	0	0	713.67 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	260	0	97,060	0	0	373.30 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	141	64	96,394	0	0	683.64 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AIC	205	0	96,394	0	0	470.21 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	ARW	34	24	18,981	0	0	558.26 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	58	0	18,981	0	0	327.25 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	23	24	24,700	0	0	1,073.91 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	47	0	24,700	0	0	525.53 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	81	72	47,614	0	0	587.82 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	153	0	47,614	0	0	311.20 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	107	112	51,206	0	0	478.56 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	ARW	219	0	51,206	0	0	233.81 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUA	363	224	152,192	0	0	419.26 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	46	33	17,122	0	0	372.21 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	587	0	152,192	0	0	259.27 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	79	0	17,122	0	0	216.73 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	692	731	450,653	0	0	651.23 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	1,423	0	450,653	0	0	316.69 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	154	240	49,331	0	0	320.33 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	394	0	49,331	0	0	125.20 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	93	190	60,059	0	0	645.79 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUA	283	0	60,059	0	0	212.22 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUB	302	292	136,060	0	0	450.52 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUB	594	0	136,060	0	0	229.05 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUB	172	144	71,056	0	0	413.11 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUB	316	0	71,056	0	0	224.86 MTBMA	Operational	06/83	05/85

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
25	Field Data and Operating Time	AUC	852	1,945	684,686	0	0	803.62 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	2,797	0	684,686	0	0	244.79 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	231	289	62,103	0	0	268.84 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	520	0	62,103	0	0	119.42 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	150	165	128,203	0	0	854.68 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	315	0	128,203	0	0	406.99 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	289	208	101,203	0	0	350.18 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	497	0	101,203	0	0	203.62 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	46	19	55,107	0	0	1,197.97 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	65	0	55,107	0	0	847.80 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	2	2	1,459	0	0	729.50 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	4	0	1,459	0	0	364.75 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	13	8	21,009	0	0	1,616.07 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	21	0	21,009	0	0	1,000.42 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	875	856	359,519	0	0	410.87 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	1,731	0	359,519	0	0	207.69 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	71	64	68,798	0	0	968.98 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	135	0	68,798	0	0	509.61 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	255	205	61,082	0	0	239.53 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	460	0	61,082	0	0	132.78 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	23	56	18,305	0	0	795.86 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	79	0	18,305	0	0	231.70 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	1	0	5,187	0	0	5,187.00 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	1	0	5,187	0	0	5,187.00 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	13	12	14,128	0	0	1,086.76 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	25	0	14,128	0	0	565.12 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	1,062	1,453	561,700	0	0	528.90 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	2,515	0	561,700	0	0	223.33 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUC	15	33	59,209	0	0	3,947.26 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUC	48	0	59,209	0	0	1,233.52 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	629	865	324,229	0	0	515.46 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	1,494	0	324,229	0	0	217.02 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	146	1,339	57,556	0	0	394.21 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	1,485	0	57,556	0	0	38.75 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	237	227	94,292	0	0	397.85 MTBF Functional	Operational	07/83	06/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

## RELIABILITY DATA

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
25	Field Data and Operating Time	AUF	464	0	94,292	0	0	203.21 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	699	758	154,753	0	0	221.39 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	1,457	0	154,753	0	0	106.21 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	773	1,012	162,383	0	0	210.06 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	1,785	0	162,383	0	0	90.97 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	1,641	1,777	235,870	0	0	143.73 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	3,418	0	235,870	0	0	69.00 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	259	175	49,969	0	0	192.93 MTBF Functional	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	434	0	49,969	0	0	115.13 MTBMA	Operational	07/83	06/85
25	Field Data and Operating Time	AUF	73	86	24,207	0	0	331.60 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	159	0	24,207	0	0	152.24 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	40	42	13,740	0	0	343.50 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	82	0	13,740	0	0	167.56 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	26	118	39,513	0	0	1,519.73 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	144	0	39,513	0	0	274.39 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	196	140	38,558	0	0	196.72 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	341	0	38,558	0	0	113.07 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	80	63	39,991	0	0	499.88 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	143	0	39,991	0	0	279.65 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	73	149	43,935	0	0	601.84 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	223	0	43,935	0	0	197.01 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	4	15	3,620	0	0	205.00 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	19	0	3,620	0	0	190.52 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	114	121	50,729	0	0	444.99 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUF	235	0	50,729	0	0	215.86 MTBMA	Operational	06/83	05/85
25	Field Data and Operating Time	AUT	67	85	55,483	0	0	828.10 MTBF Functional	Operational	06/83	05/85
25	Field Data and Operating Time	AUT	152	0	55,483	0	0	365.01 MTBMA	Operational	06/83	05/85
117	Contract Spec/Requirement	AUF	0	0	0	0	0	1,125.00 MTBF Series	Development		
117	Analysis & Prediction Report	AU	0	0	0	0	0	1,150.00 MTBF Series	Development		
117	Demonstration Test Report	AUF	4	31	4,244	3,733	0	1,061.00 MTBF Series	Development	04/73	07/75
117	Simulated Operation	AUF	5	2	5,167	0	0	1,033.40 MTBF Series	Development	07/72	11/74
117	Field Data and Operating Time	AUF	71	0	18,044	0	161	254.14 MTBM	Operational	01/77	06/77
117	Field Data and Operating Time	AUF	118	0	24,470	0	203	207.37 MTBM	Operational	07/77	12/77
117	Field Data and Operating Time	AUF	6	0	30,705	0	269	5,117.50 MTBM	Operational	01/78	06/78
117	Field Data and Operating Time	AUF	15	0	37,453	0	296	2,496.86 MTBM	Operational	07/78	12/78

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
117	Field Data and Operating Time	AUF	1,079	1,873	178,344	0	0	165.28 MTBF Functional	Operational	05/83	04/85
117	Field Data and Operating Time	AUF	2,952	0	178,344	0	0	60.41 MTBMA	Operational	05/83	04/85
117	Field Data and Operating Time	AUF	926	1,256	173,620	0	0	187.49 MTBF Functional	Operational	05/83	04/85
117	Field Data and Operating Time	AUF	2,183	0	173,620	0	0	79.53 MTBMA	Operational	05/83	04/85
121	Simulated Operation	AUF	29	1	8,504	0	0	293.24 MTBF Series	Development	07/72	11/74
121	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
121	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
121	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
121	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
121	Field Data and Operating Time	AUF	7,774	0	178,344	0	0	22.94 MTBMA	Operational	05/83	04/85
121	Field Data and Operating Time	AUF	2,829	4,945	178,344	0	0	63.04 MTBF Functional	Operational	05/83	04/85
121	Field Data and Operating Time	AUF	2,376	3,708	173,620	0	0	73.07 MTBF Functional	Operational	05/83	04/85
121	Field Data and Operating Time	AUF	6,084	0	173,620	0	0	28.53 MTBMA	Operational	05/83	04/85
124	Contract Spec/Requirement	AUF	0	0	0	0	0	680.00 MTBF Series	Development	05/73	
124	Contract Spec/Requirement	AUF	0	0	0	0	0	715.00 MTBF Series	Production	10/75	
124	Analysis & Prediction Report	AU	0	0	0	0	0	737.00 MTBF Series	Development	05/73	
124	Analysis & Prediction Report	AU	0	0	0	0	0	985.00 MTBF Series	Production	10/75	
124	Demonstration Test Report	AUF	3	31	2,123	1,274	0	707.66 MTBF Series	Development	05/73	10/74
124	Production Sample Verification	AUF	4	14	2,364	1,419	0	591.00 MTBF Series	Production	10/75	05/76
124	Simulated Operation	AUF	2	0	3,983	0	0	1,991.50 MTBF Series	Development	07/72	11/74
124	Simulated Operation	AUF	4	0	2,655	0	0	663.75 MTBF Series	Production	04/74	06/75
124	Field Data and Operating Time	AUF	108	0	18,044	0	161	167.07 MTBM	Operational	01/77	06/77
124	Field Data and Operating Time	AUF	213	0	24,470	0	203	114.88 MTBM	Operational	07/77	12/77
124	Field Data and Operating Time	AUF	13	0	30,705	0	269	2,361.92 MTBM	Operational	01/78	06/78
124	Field Data and Operating Time	AUF	24	0	37,453	0	296	1,560.54 MTBM	Operational	07/78	12/78
124	Field Data and Operating Time	AUF	858	2,456	178,344	0	0	207.86 MTBF Functional	Operational	05/83	04/85
124	Field Data and Operating Time	AUF	3,314	0	178,344	0	0	53.81 MTBMA	Operational	05/83	04/85
124	Field Data and Operating Time	AUF	629	1,543	173,620	0	0	276.02 MTBF Functional	Operational	05/83	04/85
124	Field Data and Operating Time	AUF	2,172	0	173,620	0	0	79.93 MTBMA	Operational	05/83	04/85
212	Contract Spec/Requirement	NSB	0	0	0	0	0	500.00 MTBF Series	Development		
212	Contract Spec/Requirement	NSB	0	0	0	0	0	400.00 MTBPM	Development		
212	Analysis & Prediction Report	NSB	0	0	0	0	0	430.00 MTBF Series	Development		
212	Demonstration Test Report	NSB	14	56	8,002	167	0	571.57 MTBF Series	Development	07/74	12/74
212	Production Sample Verification	NSB	163	110	1,448	0	37	8.88 MTBF Series	Production	01/74	03/75
212	Production Sample Verification	NSB	34	23	1,328	0	37	39.05 MTBF Series	Production	02/74	02/75

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
212	Production Sample Verification	NSB	14	27	3,982	0	37	284.42 MTBF Series	Production	02/74	02/75
212	Production Sample Verification	NSB	95	126	5,211	0	37	54.85 MTBF Series	Production	02/74	03/75
212	Field Data and Operating Time	NSB	214	90	89,094	0	28	416.32 MTBF Functional	Operational	05/74	04/76
228	Contract Spec/Requirement	AUF	0	0	0	0	0	225.00 MTBF Series	Development		
228	Contract Spec/Requirement	AUF	0	0	0	0	0	270.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	213.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	245.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	256.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	221.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	394.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	318.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	380.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	234.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	375.00 MTBF Series	Development		
228	Analysis & Prediction Report	AU	0	0	0	0	0	232.00 MTBF Series	Development		
228	Demonstration Test Report	AUF	4	5	216	89	0	54.00 MTBF Series	Development	02/75	03/75
228	Demonstration Test Report	AUF	4	7	247	102	0	61.75 MTBF Series	Development	03/75	04/75
228	Demonstration Test Report	AUF	11	28	2,563	1,055	0	233.00 MTBF Series	Development	04/75	06/75
231	Contract Spec/Requirement	GT	0	0	0	0	0	1,500.00 MTBF Series	Development		
231	Analysis & Prediction Report	GT	0	0	0	0	0	1,738.00 MTBF Series	Development		
231	Analysis & Prediction Report	GT	0	0	0	0	0	1,780.00 MTBF Series	Development		
231	Demonstration Test Report	GT	2	1	215	0	0	107.50 MTBF Series	Development	06/77	06/77
231	Demonstration Test Report	GT	3	2	944	0	0	314.66 MTBF Series	Development	06/77	07/77
231	Demonstration Test Report	GT	3	0	793	0	0	264.33 MTBF Series	Development	07/77	08/77
231	Demonstration Test Report	GT	3	0	244	0	0	81.33 MTBF Series	Development	09/77	09/77
231	Demonstration Test Report	GT	0	0	1,290	0	0	1,861.47 MTBF Series	Development	12/77	01/78
231	Simulated Operation	GT	2	0	100	0	0	50.00 MTBF Series	Development		
231	Field Data and Operating Time	GT	9	15	177,120	0	63	19,680.00 MTBF Functional	Operational	08/83	07/85
231	Field Data and Operating Time	GT	24	0	177,120	0	63	7,380.00 MTBMA	Operational	08/83	07/85
231	Field Data and Operating Time	GT	53	0	177,120	0	63	3,341.88 MTBM	Operational	08/83	07/85
269	Field Data and Operating Time	AUC	350	167	96,394	0	0	275.41 MTBF Functional	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	517	0	96,394	0	0	186.44 MTBMA	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	297	0	97,060	0	0	326.80 MTBF Functional	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	501	0	97,060	0	0	193.73 MTBMA	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	1,801	0	511,313	0	0	283.90 MTBF Functional	Operational	06/83	05/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
269	Field Data and Operating Time	AUC	2,927	0	511,313	0	0	174.68 MTBMA	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	261	0	49,085	0	0	188.06 MTBF Functional	Operational	06/83	05/85
269	Field Data and Operating Time	AUC	359	0	49,085	0	0	136.72 MTBMA	Operational	06/83	05/85
312	Contract Spec/Requirement	AF	0	0	0	0	0	1,000.00 MTBF Series	Development		
312	Demonstration Test Report	AF	4	0	4,970	0	11	1,242.50 MTBF Series	Development	10/76	11/76
312	Field Data and Operating Time	AA	326	150	60,059	0	0	184.23 MTBF Functional	Operational	06/83	05/85
312	Field Data and Operating Time	AA	334	0	60,059	0	0	179.81 MTBMA	Operational	06/83	05/85
312	Field Data and Operating Time	AF	253	253	19,969	0	0	78.92 MTBF Functional	Operational	07/83	06/85
312	Field Data and Operating Time	AF	506	0	19,969	0	0	39.46 MTBMA	Operational	07/83	06/85
312	Field Data and Operating Time	AF	556	818	154,753	0	0	278.33 MTBF Functional	Operational	07/83	06/85
312	Field Data and Operating Time	AF	1,474	0	154,753	0	0	104.98 MTBMA	Operational	07/83	06/85
312	Field Data and Operating Time	AF	296	587	94,292	0	0	318.55 MTBF Functional	Operational	07/83	06/85
312	Field Data and Operating Time	AF	883	0	94,292	0	0	106.78 MTBMA	Operational	07/83	06/85
312	Field Data and Operating Time	AF	667	1,379	162,383	0	0	243.45 MTBF Functional	Operational	07/83	06/85
312	Field Data and Operating Time	AF	2,066	0	162,383	0	0	79.36 MTBMA	Operational	07/83	06/85
312	Field Data and Operating Time	AF	922	1,620	235,870	0	0	255.82 MTBF Functional	Operational	07/83	06/85
312	Field Data and Operating Time	AF	2,542	0	235,870	0	0	92.78 MTBMA	Operational	07/83	06/85
312	Field Data and Operating Time	AT	108	107	55,483	0	0	513.73 MTBF Functional	Operational	06/83	05/85
312	Field Data and Operating Time	AT	215	0	55,483	0	0	258.06 MTBMA	Operational	06/83	05/85
326	Contract Spec/Requirement	AUF	0	0	0	0	0	150.00 MTBF Series	Development		
326	Analysis & Prediction Report	AUF	0	0	0	0	0	790.00 MTBF Series	Development		
326	Demonstration Test Report	AUF	0	0	0	0	0	272.00 MTBF Series	Development		
326	Field Data and Operating Time	AUF	4,470	5,797	303,981	0	0	68.00 MTBF Functional	Operational	05/83	04/85
326	Field Data and Operating Time	AUF	10,267	0	303,981	0	0	29.60 MTBMA	Operational	05/83	04/85
326	Field Data and Operating Time	AUF	948	1,127	53,220	0	0	56.13 MTBF Functional	Operational	05/83	04/85
326	Field Data and Operating Time	AUF	2,075	0	53,220	0	0	25.64 MTBMA	Operational	05/83	04/85
327	Contract Spec/Requirement	AIC	0	0	0	0	0	750.00 MTBF Series	Development		
327	Analysis & Prediction Report	AIC	0	0	0	0	0	1,941.00 MTBF Series	Development		
327	Field Data and Operating Time	AIC	0	0	1,114	0	0	1,607.50 MTBF Functional	Operational	10/76	03/77
327	Field Data and Operating Time	AIC	25	0	29,328	0	0	1,173.12 MTBF Functional	Operational	04/77	09/77
327	Field Data and Operating Time	AIC	42	0	46,403	0	0	1,104.83 MTBF Functional	Operational	10/77	03/78
327	Field Data and Operating Time	AIC	96	0	106,914	0	0	1,113.68 MTBF Functional	Operational	04/78	09/78
327	Field Data and Operating Time	AIC	186	0	277,362	0	0	1,491.19 MTBF Functional	Operational	04/79	09/79
327	Field Data and Operating Time	AIC	128	0	141,140	0	0	1,102.65 MTBF Functional	Operational	10/78	03/79
337	Analysis & Prediction Report	AUA	0	0	0	0	0	2,707.00 MTBF Series	Development		

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
337	Field Data and Operating Time	AUA	1,100	257	152,192	0	0	138.35 MTBF Functional	Operational	06/83	05/85
337	Field Data and Operating Time	AUA	1,357	0	152,192	0	0	112.15 MTBMA	Operational	06/83	05/85
337	Field Data and Operating Time	AUA	119	36	17,122	0	0	143.88 MTBF Functional	Operational	06/83	05/85
337	Field Data and Operating Time	AUA	155	0	17,122	0	0	110.46 MTBMA	Operational	06/83	05/85
340	Contract Spec/Requirement	AUA	0	0	0	0	0	1,500.00 MTBF Series	Development		
340	Analysis & Prediction Report	AUA	0	0	0	0	0	2,208.00 MTBF Series	Development		
340	Simulated Operation	AUA	0	3,200	0	0	0	4,618.00 MTBF Series	Development		
340	Field Data and Operating Time	AUA	868	922	450,653	0	0	519.18 MTBF Functional	Operational	06/83	05/85
340	Field Data and Operating Time	AUA	1,790	0	450,653	0	0	251.76 MTBMA	Operational	06/83	05/85
378	Contract Spec/Requirement	AUF	0	0	0	0	0	125.00 MTBF Series	Development		
378	Demonstration Test Report	AUF	0	0	0	0	0	142.00 MTBF Series	Development		
378	Field Data and Operating Time	AUF	11,406	0	235,873	0	0	20.67 MTBMA	Operational	07/83	06/85
378	Field Data and Operating Time	AUF	1,415	9,991	235,870	0	0	166.69 MTBF Functional	Operational	07/83	06/85
378	Field Data and Operating Time	AUF	2,435	0	162,383	0	0	66.68 MTBMA	Operational	07/83	06/85
378	Field Data and Operating Time	AUF	573	1,862	162,383	0	0	283.39 MTBF Functional	Operational	07/83	06/85
386	Allocation/Apportion	AUB	0	0	0	0	0	1,878.00 MTBF Series	Development		
386	Analysis & Prediction Report	AUB	0	0	0	0	0	3,297.00 MTBF Series	Development		
386	Field Data and Operating Time	AUB	199	390	136,060	0	0	683.71 MTBF Functional	Operational	06/83	05/85
386	Field Data and Operating Time	AUB	589	0	136,060	0	0	231.00 MTBMA	Operational	06/83	05/85
386	Field Data and Operating Time	AUB	98	224	71,056	0	0	725.06 MTBF Functional	Operational	06/83	05/85
386	Field Data and Operating Time	AUB	322	0	71,056	0	0	220.67 MTBMA	Operational	06/83	05/85
390	Contract Spec/Requirement	ARW	0	0	0	0	0	1,000.00 MTBF Series	Development		
390	Demonstration Test Report	ARW	3	0	1,840	0	0	613.33 MTBF Series	Development		
390	Field Data and Operating Time	ARW	43	43	7,208	0	0	167.62 MTBF Functional	Operational	06/83	05/85
390	Field Data and Operating Time	ARW	86	0	7,208	0	0	83.81 MTBMA	Operational	06/83	05/85
392	Analysis & Prediction Report	AUF	0	0	0	0	0	500.00 MTBF Series	Development		
392	Field Data and Operating Time	AUF	606	298	24,207	0	0	39.94 MTBF Functional	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	904	0	24,207	0	0	26.77 MTBMA	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	733	200	38,558	0	0	52.60 MTBF Functional	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	1,433	0	38,558	0	0	26.90 MTBMA	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	670	457	39,991	0	0	59.68 MTBF Functional	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	1,127	0	39,991	0	0	35.48 MTBMA	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	794	440	43,935	0	0	55.33 MTBF Functional	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	1,234	0	43,935	0	0	35.60 MTBMA	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	273	337	13,740	0	0	50.32 MTBF Functional	Operational	06/83	05/85

# BERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Guidance/Navigation,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
392	Field Data and Operating Time	AUF	610	0	13,740	0	0	22.52 MTBMA	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	818	790	39,513	0	0	48.30 MTBF Functional	Operational	06/83	05/85
392	Field Data and Operating Time	AUF	1,618	0	39,513	0	0	24.42 MTBMA	Operational	06/83	05/85

### Guidance/Navigation, Amplifier, Audio

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
241	Analysis & Prediction Report	AUF	0	0	0	0	0	3,004.00 MTBF Series	Development		
241	Analysis & Prediction Report	AUF	0	0	0	0	0	6,157.00 MTBF Series	Development		
241	Demonstration Test Report	AUF	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
241	Demonstration Test Report	AUF	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
241	Demonstration Test Report	AUF	0	0	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75

### Guidance/Navigation, Amplifier, RF

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
118	Analysis & Prediction Report	AU	0	0	0	0	0	1,409.00 MTBF Series	Development	04/73	07/75
118	Demonstration Test Report	AUF	2	12	4,244	3,733	0	2,122.00 MTBF Series	Development	07/72	11/74
118	Simulated Operation	AUF	5	0	5,167	0	0	1,033.40 MTBF Series	Development	04/74	06/75
118	Simulated Operation	AUF	5	0	2,638	0	0	527.60 MTBF Series	Development	05/83	04/85
118	Field Data and Operating Time	AUF	435	473	178,344	0	0	409.98 MTBF Functional	Operational	05/83	04/85
118	Field Data and Operating Time	AUF	908	0	178,344	0	0	196.41 MTBMA	Operational	05/83	04/85
118	Field Data and Operating Time	AUF	362	318	173,620	0	0	479.61 MTBF Functional	Operational	05/83	04/85
118	Field Data and Operating Time	AUF	680	0	173,620	0	0	255.32 MTBMA	Operational	05/83	04/85

### Guidance/Navigation, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
213	Analysis & Prediction Report	NUU	0	0	0	0	0	16,692.00 MTBF Series	Development	07/74	12/74
213	Demonstration Test Report	NUU	0	0	8,002	167	0	11,546.89 MTBF Series	Development	01/74	03/75
213	Production Sample Verification	NUU	0	0	1,448	0	37	2,089.46 MTBF Series	Production	02/74	02/75
213	Production Sample Verification	NUU	0	0	1,328	0	37	1,916.30 MTBF Series	Production	02/74	02/75

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
213	Production Sample Verification	NUU	0	0	3,982	0	37	5,746.03 MTBF Series	Production	02/74	02/75
213	Production Sample Verification	NUU	1	0	5,211	0	37	5,211.00 MTBF Series	Production	02/74	03/75
213	Field Data and Operating Time	NUU	21	4	89,094	0	28	4,242.57 MTBF Functional	Operational	05/74	04/76
232	Analysis & Prediction Report	GT	0	0	0	0	0	38,871.00 MTBF Series	Development		
232	Analysis & Prediction Report	GT	0	0	0	0	0	33,204.00 MTBF Series	Development		
232	Demonstration Test Report	GT	0	1	215	0	0	310.24 MTBF Series	Development	06/77	06/77
232	Demonstration Test Report	GT	1	0	944	0	0	944.00 MTBF Series	Development	06/77	07/77
232	Demonstration Test Report	GT	1	0	793	0	0	793.00 MTBF Series	Development	07/77	08/77
232	Demonstration Test Report	GT	1	0	244	0	0	244.00 MTBF Series	Development	09/77	09/77
232	Demonstration Test Report	GT	0	1	1,290	0	0	1,861.47 MTBF Series	Development	12/77	01/78
232	Simulated Operation	GT	0	0	100	0	0	144.30 MTBF Series	Development		
232	Field Data and Operating Time	GT	1	4	177,120	0	63	177,120.00 MTBF Functional	Operational	08/83	07/85
232	Field Data and Operating Time	GT	5	0	177,120	0	63	35,424.00 MTBMA	Operational	08/83	07/85
232	Field Data and Operating Time	GT	15	0	177,120	0	63	11,808.00 MTBM	Operational	08/83	07/85
388	Allocation/Apportion	AUB	0	0	0	0	0	50,000.00 MTBF Series	Development		
388	Analysis & Prediction Report	AUB	0	0	0	0	0	50,000.00 MTBF Series	Development		
388	Field Data and Operating Time	AUB	33	39	136,060	0	0	4,123.03 MTBF Functional	Operational	06/83	05/85
388	Field Data and Operating Time	AUB	72	0	136,060	0	0	1,889.72 MTBMA	Operational	06/83	05/85
388	Field Data and Operating Time	AUB	12	19	71,056	0	0	5,921.33 MTBF Functional	Operational	06/83	05/85
308	Field Data and Operating Time	AUB	31	0	71,056	0	0	2,292.12 MTBMA	Operational	06/83	05/85

Guidance/Navigation, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
125	Analysis & Prediction Report	AU	0	0	0	0	0	2,294.00 MTBF Series	Development	05/73	10/74
125	Analysis & Prediction Report	AU	0	0	0	0	0	3,513.00 MTBF Series	Development	11/74	06/75
125	Analysis & Prediction Report	AU	0	0	0	0	0	3,949.00 MTBF Series	Development	06/75	08/76
125	Demonstration Test Report	AUF	0	7	2,123	1,274	0	3,063.49 MTBF Series	Development	05/73	10/74
125	Production Sample Verification	AUF	1	3	2,364	1,419	0	2,364.00 MTBF Series	Development	10/75	05/76
125	Simulated Operation	AUF	0	0	3,983	0	0	5,747.47 MTBF Functional	Development	07/72	11/74
125	Simulated Operation	AUF	3	0	2,655	0	0	885.00 MTBF Functional	Development	04/74	06/75
125	Field Data and Operating Time	AUF	132	351	178,344	0	0	1,351.09 MTBF Functional	Operational	05/83	04/85
125	Field Data and Operating Time	AUF	483	0	178,344	0	0	369.24 MTBMA	Operational	05/83	04/85
125	Field Data and Operating Time	AUF	105	211	173,620	0	0	1,653.52 MTBF Functional	Operational	05/83	04/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
125	Field Data and Operating Time	AUF	316	0	173,620	0	0	549.43 MTBMA	Operational	05/83	04/85
126	Analysis & Prediction Report	AU	0	0	0	0	0	2,288.00 MTBF Series	Development	05/73	10/74
126	Analysis & Prediction Report	AU	0	0	0	0	0	3,513.00 MTBF Series	Development	11/74	06/75
126	Analysis & Prediction Report	AU	0	0	0	0	0	3,774.00 MTBF Series	Development	10/75	05/76
126	Demonstration Test Report	AUF	2	6	2,123	1,274	0	1,061.50 MTBF Series	Development	05/73	10/74
126	Production Sample Verification	AUF	0	4	2,364	1,419	0	3,411.25 MTBF Series	Development	10/75	05/76
126	Simulated Operation	AUF	2	0	3,983	0	0	1,991.50 MTBF Functional	Development	07/72	11/74
126	Simulated Operation	AUF	0	0	2,712	0	0	3,913.41 MTBF Functional	Development	04/74	06/75
126	Field Data and Operating Time	AUF	171	287	178,344	0	0	1,042.94 MTBF Functional	Operational	05/83	04/85
126	Field Data and Operating Time	AUF	458	0	178,344	0	0	389.39 MTBMA	Operational	05/83	04/85
126	Field Data and Operating Time	AUF	125	236	173,620	0	0	1,388.96 MTBF Functional	Operational	05/83	04/85
126	Field Data and Operating Time	AUF	361	0	173,620	0	0	480.94 MTBMA	Operational	05/83	04/85
234	Analysis & Prediction Report	AU	0	0	0	0	0	680.00 MTBF Series	Development		
234	Analysis & Prediction Report	AU	0	0	0	0	0	690.00 MTBF Series	Development		
234	Analysis & Prediction Report	AU	0	0	0	0	0	1,362.00 MTBF Series	Development		
234	Analysis & Prediction Report	AU	0	0	0	0	0	1,248.00 MTBF Series	Development		
234	Analysis & Prediction Report	AU	0	0	0	0	0	625.00 MTBF Series	Development		
234	Demonstration Test Report	AUF	1	0	216	89	0	216.00 MTBF Series	Development	02/75	03/75
234	Demonstration Test Report	AUF	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
234	Demonstration Test Report	AUF	7	10	2,563	1,055	0	366.14 MTBF Series	Development	04/75	06/75
330	Analysis & Prediction Report	AIC	0	0	0	0	0	3,683.00 MTBF Series	Development		
330	Field Data and Operating Time	AIC	0	0	1,114	0	0	1,607.50 MTBF Functional	Operational	10/76	03/77
330	Field Data and Operating Time	AIC	20	0	29,328	0	0	1,466.40 MTBF Functional	Operational	04/77	09/77
330	Field Data and Operating Time	AIC	25	0	46,403	0	0	1,856.12 MTBF Functional	Operational	10/77	03/78
330	Field Data and Operating Time	AIC	39	0	106,914	0	0	2,741.38 MTBF Functional	Operational	04/78	09/78
330	Field Data and Operating Time	AIC	35	0	141,140	0	0	4,032.57 MTBF Functional	Operational	10/78	03/79
330	Field Data and Operating Time	AIC	61	0	277,362	0	0	4,546.91 MTBF Functional	Operational	04/79	09/79
343	Analysis & Prediction Report	AUA	0	0	0	0	0	4,535.00 MTBF Series	Development		
343	Field Data and Operating Time	AUA	263	148	450,653	0	0	1,713.50 MTBF Functional	Operational	06/83	05/85
343	Field Data and Operating Time	AUA	411	0	450,653	0	0	1,096.47 MTBMA	Operational	06/83	05/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## Guidance/Navigation, Converter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
235	Analysis & Prediction Report	AU	0	0	0	0	0	1,210.00 MTBF Series	Development		
235	Analysis & Prediction Report	AU	0	0	0	0	0	1,319.00 MTBF Series	Development		
235	Analysis & Prediction Report	AU	0	0	0	0	0	2,410.00 MTBF Series	Development		
235	Analysis & Prediction Report	AU	0	0	0	0	0	2,266.00 MTBF Series	Development		
235	Analysis & Prediction Report	AU	0	0	0	0	0	1,136.00 MTBF Series	Development		
235	Demonstration Test Report	AUF	1	0	216	89	0	216.00 MTBF Series	Development	02/75	03/75
235	Demonstration Test Report	AUF	2	2	247	102	0	123.50 MTBF Series	Development	03/75	04/75
235	Demonstration Test Report	AUF	2	2	2,563	1,055	0	1,281.50 MTBF Series	Development	04/75	06/75
236	Analysis & Prediction Report	AU	0	0	0	0	0	2,108.00 MTBF Series	Development		
236	Analysis & Prediction Report	AU	0	0	0	0	0	1,096.00 MTBF Series	Development		

## Guidance/Navigation, Filter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
245	Analysis & Prediction Report	GT	0	0	0	0	0	870,716.00 MTBF Series	Development	09/75	
245	Demonstration Test Report	GT	0	0	215	0	0	310.24 MTBF Series	Development	06/77	06/77
245	Demonstration Test Report	GT	0	0	944	0	0	1,362.19 MTBF Series	Development	06/77	07/77
245	Demonstration Test Report	GT	0	0	793	0	0	1,144.30 MTBF Series	Development	07/77	08/77
245	Demonstration Test Report	GT	0	0	244	0	0	352.09 MTBF Series	Development	09/77	09/77
245	Demonstration Test Report	GT	0	0	1,290	0	0	1,861.47 MTBF Series	Development	12/77	01/78
245	Field Data and Operating Time	GT	0	0	177,120	0	63	255,584.41 MTBF Functional	Operational	08/83	07/85
245	Field Data and Operating Time	GT	0	0	177,120	0	63	255,584.41 MTBMA	Operational	08/83	07/85
245	Field Data and Operating Time	GT	0	0	177,120	0	63	255,584.41 MTBM	Operational	08/83	07/85

## Guidance/Navigation, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
40	Contract Spec/Requirement	AIF	0	0	0	0	0	17,060.00 MTBF Series	Development		
40	Analysis & Prediction Report	AI	0	0	0	0	0	14,900.00 MTBF Series	Development	03/74	03/75
40	Demonstration Test Report	AIF	0	0	7,355	4,903	0	10,613.27 MTBF Series	Development	08/73	11/73
40	Demonstration Test Report	AIF	0	1	975	650	0	1,406.92 MTBF Series	Development	03/73	06/73
40	Demonstration Test Report	AIF	1	1	969	646	0	969.00 MTBF Series	Development	06/75	09/75
40	Production Sample Verification	AIF	1	1	3,544	2,364	0	3,544.00 MTBF Series	Production		

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Indicator/Control

EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
				RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
40	40	Production Sample Verification	AIF	0	0	2,864	1,908	0	4,132.75 MTBF Series	Production	01/76	04/76
40	40	Production Sample Verification	AIF	0	0	2,843	1,895	0	4,102.45 MTBF Series	Production	01/77	04/77
40	40	Simulated Operation	AIF	1	0	9,472	0	0	9,472.00 MTBF Series	Development	07/72	11/74
40	40	Field Data and Operating Time	AIF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
40	40	Field Data and Operating Time	AIF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
40	40	Field Data and Operating Time	AIF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
40	40	Field Data and Operating Time	AIF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
40	40	Field Data and Operating Time	AIF	144	75	204,853	0	0	1,422.59 MTBF Functional	Operational	05/83	04/85
40	40	Field Data and Operating Time	AIF	219	0	204,853	0	0	935.40 MTBMA	Operational	05/83	04/85
40	40	Field Data and Operating Time	AIF	189	63	198,726	0	0	1,051.46 MTBF Functional	Operational	05/83	04/85
40	40	Field Data and Operating Time	AIF	252	0	198,726	0	0	788.59 MTBMA	Operational	05/83	04/85
120	120	Analysis & Prediction Report	AI	0	0	0	0	0	28,167.00 MTBF Series	Development	04/73	07/75
120	120	Demonstration Test Report	AIF	0	1	4,244	3,733	0	6,124.09 MTBF Series	Development	07/72	11/74
120	120	Simulated Operation	AIF	0	0	5,167	0	0	7,455.98 MTBF Series	Development	05/83	04/85
120	120	Field Data and Operating Time	AIF	71	43	178,344	0	0	2,511.88 MTBF Functional	Operational	05/83	04/85
120	120	Field Data and Operating Time	AIF	114	0	178,344	0	0	1,564.42 MTBMA	Operational	05/83	04/85
120	120	Field Data and Operating Time	AIF	59	33	173,620	0	0	2,942.71 MTBF Functional	Operational	05/83	04/85
120	120	Field Data and Operating Time	AIF	92	0	173,620	0	0	1,887.17 MTBMA	Operational	05/83	04/85
123	123	Simulated Operation	AIF	4	1	8,504	0	0	2,126.00 MTBF Series	Development	07/72	11/74
127	127	Analysis & Prediction Report	AI	0	0	0	0	0	44,839.00 MTBF Series	Development	05/73	
127	127	Analysis & Prediction Report	AI	0	0	0	0	0	30,867.00 MTBF Series	Production	10/75	
127	127	Demonstration Test Report	AIF	0	1	2,123	1,274	0	3,063.49 MTBF Series	Development	05/73	10/74
127	127	Production Sample Verification	AIF	0	2	2,364	1,419	0	3,411.25 MTBF Series	Production	10/75	05/76
127	127	Simulated Operation	AIF	0	0	1,606	0	0	2,317.46 MTBF Series	Development	07/72	11/74
127	127	Field Data and Operating Time	AIF	49	69	178,344	0	0	3,639.67 MTBF Functional	Operational	05/83	04/85
127	127	Field Data and Operating Time	AIF	118	0	178,344	0	0	1,511.38 MTBMA	Operational	05/83	04/85
127	127	Field Data and Operating Time	AIF	29	47	173,620	0	0	5,986.89 MTBF Functional	Operational	05/83	04/85
127	127	Field Data and Operating Time	AIF	76	0	173,620	0	0	2,284.47 MTBMA	Operational	05/83	04/85
130	130	Analysis & Prediction Report	AI	0	0	0	0	0	79,707.00 MTBF Series	Development	05/73	
130	130	Demonstration Test Report	AIF	0	2	2,123	1,274	0	3,063.49 MTBF Series	Development	05/73	10/74
130	130	Production Sample Verification	AIF	1	1	2,364	1,419	0	2,364.00 MTBF Series	Production	10/75	05/76
130	130	Simulated Operation	AIF	0	0	1,606	0	0	2,317.46 MTBF Series	Development	07/72	11/74
130	130	Field Data and Operating Time	AIF	37	42	178,344	0	0	4,820.10 MTBF Functional	Operational	05/83	04/85
130	130	Field Data and Operating Time	AIF	79	0	178,344	0	0	2,257.51 MTBMA	Operational	05/83	04/85
130	130	Field Data and Operating Time	AIF	45	57	173,620	0	0	3,858.22 MTBF Functional	Operational	05/83	04/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## RELIABILITY DATA

Guidance/Navigation, Indicator/Control

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
130	AIF	Field Data and Operating Time	102	0	173,620	0	0	1,702.15 MTBMA	Operational	05/83	04/85
214	NSB	Analysis & Prediction Report	0	0	0	0	0	2,881.00 MTBF Series	Development		
214	NSB	Demonstration Test Report	3	51	8,002	167	0	2,667.33 MTBF Series	Development	07/74	12/74
214	NSB	Production Sample Verification	43	15	1,448	0	37	33.67 MTBF Series	Production	01/74	03/75
214	NSB	Production Sample Verification	8	4	1,328	0	37	166.00 MTBF Series	Production	02/74	02/75
214	NSB	Production Sample Verification	4	2	3,982	0	37	995.50 MTBF Series	Production	02/74	02/75
214	NSB	Production Sample Verification	23	15	5,211	0	37	226.56 MTBF Series	Production	02/74	03/75
214	NSB	Field Data and Operating Time	31	23	89,094	0	28	2,874.00 MTBF Functional	Operational	05/74	04/76
237	AI	Analysis & Prediction Report	0	0	0	0	0	4,986.00 MTBF Series	Development		
237	AI	Analysis & Prediction Report	0	0	0	0	0	5,258.00 MTBF Series	Development		
237	AIF	Demonstration Test Report	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
237	AIF	Demonstration Test Report	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
237	AIF	Demonstration Test Report	0	0	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75
238	AIF	Analysis & Prediction Report	0	0	0	0	0	26,542.00 MTBF Series	Development		
238	AIF	Analysis & Prediction Report	0	0	0	0	0	27,215.00 MTBF Series	Development		
238	AIF	Demonstration Test Report	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
238	AIF	Demonstration Test Report	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
238	AIF	Demonstration Test Report	0	0	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75
239	AIF	Analysis & Prediction Report	0	0	0	0	0	4,422.00 MTBF Series	Development		
239	AIF	Analysis & Prediction Report	0	0	0	0	0	4,637.00 MTBF Series	Development		
239	AIF	Demonstration Test Report	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
239	AIF	Demonstration Test Report	1	0	247	102	0	247.00 MTBF Series	Development	03/75	04/75
239	AIF	Demonstration Test Report	0	2	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75
240	AIF	Analysis & Prediction Report	0	0	0	0	0	16,546.00 MTBF Series	Development		
240	AIF	Analysis & Prediction Report	0	0	0	0	0	17,202.00 MTBF Series	Development		
240	AIF	Demonstration Test Report	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
240	AIF	Demonstration Test Report	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
240	AIF	Demonstration Test Report	0	0	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75
270	AIC	Field Data and Operating Time	191	39	96,394	0	0	504.68 MTBF Functional	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	230	0	96,394	0	0	419.10 MTBMA	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	206	13	97,060	0	0	471.16 MTBF Functional	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	219	0	97,060	0	0	443.19 MTBMA	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	1,034	201	511,313	0	0	494.50 MTBF Functional	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	1,235	0	511,313	0	0	414.01 MTBMA	Operational	06/83	05/85
270	AIC	Field Data and Operating Time	167	16	49,085	0	0	293.92 MTBF Functional	Operational	06/83	05/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	SIZE			START	END
270	Field Data and Operating Time	AIC	183	0	49,085	0	0	0	268.22 MTBMA	Operational	06/83	05/85
314	Demonstration Test Report	AIF	0	0	4,970	0	11	0	7,171.71 MTBF Series	Development	10/76	11/76
314	Field Data and Operating Time	AIA	24	11	60,059	0	0	0	2,502.45 MTBF Functional	Operational	06/83	05/85
314	Field Data and Operating Time	AIA	35	0	60,059	0	0	0	1,715.97 MTBMA	Operational	06/83	05/85
314	Field Data and Operating Time	AIF	83	22	49,969	0	0	0	602.03 MTBF Functional	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	105	0	49,969	0	0	0	475.89 MTBMA	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	181	42	154,753	0	0	0	854.98 MTBF Functional	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	223	0	154,753	0	0	0	693.95 MTBMA	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	56	16	94,292	0	0	0	1,683.78 MTBF Functional	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	72	0	94,292	0	0	0	1,309.61 MTBMA	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	192	45	162,383	0	0	0	845.74 MTBF Functional	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	239	0	162,383	0	0	0	679.42 MTBMA	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	343	77	235,870	0	0	0	687.66 MTBF Functional	Operational	07/83	06/85
314	Field Data and Operating Time	AIF	420	0	235,870	0	0	0	561.59 MTBMA	Operational	07/83	06/85
314	Field Data and Operating Time	AIT	13	1	55,483	0	0	0	4,267.92 MTBF Functional	Operational	06/83	05/85
314	Field Data and Operating Time	AUT	14	0	55,483	0	0	0	3,963.07 MTBMA	Operational	06/83	05/85
329	Analysis & Prediction Report	AIC	0	0	0	0	0	0	24,722.00 MTBF Series	Development	10/76	03/77
329	Field Data and Operating Time	AIC	0	0	1,114	0	0	0	1,607.50 MTBF Functional	Operational	04/77	09/77
329	Field Data and Operating Time	AIC	0	0	29,328	0	0	0	42,320.34 MTBF Functional	Operational	10/77	03/78
329	Field Data and Operating Time	AIC	0	0	46,403	0	0	0	66,959.59 MTBF Functional	Operational	04/78	09/78
329	Field Data and Operating Time	AIC	0	0	106,914	0	0	0	154,277.05 MTBF Functional	Operational	10/78	03/79
329	Field Data and Operating Time	AIC	3	0	141,140	0	0	0	47,046.66 MTBF Functional	Operational	04/79	09/79
329	Field Data and Operating Time	AIC	3	0	277,362	0	0	0	92,454.00 MTBF Functional	Operational	06/83	05/85
339	Contract Spec/Requirement	AIA	0	0	0	0	0	0	6,000.00 MTBF Series	Development	06/83	05/85
339	Analysis & Prediction Report	AUA	0	0	0	0	0	0	22,676.00 MTBF Series	Development	06/83	05/85
339	Field Data and Operating Time	AIA	40	6	17,122	0	0	0	428.05 MTBF Functional	Operational	06/83	05/85
339	Field Data and Operating Time	AIA	46	0	17,122	0	0	0	372.21 MTBMA	Operational	06/83	05/85
339	Field Data and Operating Time	AIF	114	9	152,192	0	0	0	1,335.01 MTBF Functional	Operational	06/83	05/85
339	Field Data and Operating Time	AIF	123	0	152,192	0	0	0	1,237.33 MTBMA	Operational	06/83	05/85
345	Analysis & Prediction Report	AIA	0	0	0	0	0	0	25,740.00 MTBF Series	Development	06/83	05/85
345	Field Data and Operating Time	AIA	66	53	450,653	0	0	0	6,828.07 MTBF Functional	Operational	06/83	05/85
345	Field Data and Operating Time	AIA	119	0	450,653	0	0	0	3,787.00 MTBMA	Operational	06/83	05/85
389	Allocation/Apportion	AIB	0	0	0	0	0	0	3,897.00 MTBF Series	Development	06/83	05/85
389	Analysis & Prediction Report	AIB	0	0	0	0	0	0	19,873.00 MTBF Series	Development	06/83	05/85
389	Field Data and Operating Time	AIB	52	35	136,060	0	0	0	2,616.53 MTBF Functional	Operational	06/83	05/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
389	Field Data and Operating Time	AIB	35	0	136,060	0	0	3,887.42 MTBMA	Operational	06/83	05/85
389	Field Data and Operating Time	AIB	33	52	71,056	0	0	2,153.21 MTBF Functional	Operational	06/83	05/85
389	Field Data and Operating Time	AIB	85	0	71,056	0	0	835.95 MTBMA	Operational	06/83	05/85

Guidance/Navigation, Inertial Reference

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
34	Contract Spec/Requirement	AUF	0	0	0	0	0	1,500.00 MTBF Series	Production		
34	Contract Spec/Requirement	AUF	0	0	0	0	0	1,000.00 MTBF Series	Production		
34	Contract Spec/Requirement	AUF	0	0	0	0	0	800.00 MTBF Functional	Development		
34	Analysis & Prediction Report	AU	0	0	0	0	0	1,493.00 MTBF Series	Production		
34	Demonstration Test Report	AUF	3	20	3,619	2,714	0	1,206.33 MTBF Functional	Development	06/74	09/75
34	Production Sample Verification	AUF	2	5	3,645	2,025	0	1,822.50 MTBF Functional	Production	12/76	05/77
34	Simulated Operation	AUF	2	0	2,397	0	0	1,198.50 MTBF Series	Development	07/72	11/74
34	Simulated Operation	AUF	10	0	1,793	0	0	179.30 MTBF Series	Development	04/74	06/75
34	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
34	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
34	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
34	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
34	Field Data and Operating Time	AUF	307	574	178,344	0	0	580.92 MTBF Functional	Operational	05/83	04/85
34	Field Data and Operating Time	AUF	881	0	178,344	0	0	202.43 MTBMA	Operational	05/83	04/85
34	Field Data and Operating Time	AUF	267	363	173,620	0	0	650.26 MTBF Functional	Operational	05/83	04/85
34	Field Data and Operating Time	AUF	630	0	173,620	0	0	275.58 MTBMA	Operational	05/83	04/85
119	Analysis & Prediction Report	AU	0	0	0	0	0	8,182.00 MTBF Series	Development		
119	Demonstration Test Report	AUF	2	18	4,244	3,733	0	2,122.00 MTBF Series	Development	04/73	07/75
119	Simulated Operation	AUF	0	1	5,167	0	0	7,455.98 MTBF Series	Development	07/72	11/74
119	Simulated Operation	AUF	6	0	2,639	0	0	439.83 MTBF Series	Development	04/74	06/75
119	Field Data and Operating Time	AUF	440	559	178,344	0	0	405.32 MTBF Functional	Operational	05/83	04/85
119	Field Data and Operating Time	AUF	999	0	178,344	0	0	178.52 MTBMA	Operational	05/83	04/85
119	Field Data and Operating Time	AUF	362	256	173,620	0	0	479.61 MTBF Functional	Operational	05/83	04/85
119	Field Data and Operating Time	AUF	618	0	173,620	0	0	280.93 MTBMA	Operational	05/83	04/85
122	Simulated Operation	AUF	25	0	2,476	0	0	99.04 MTBF Series	Development	07/72	11/74
122	Simulated Operation	AUF	26	0	1,927	0	0	74.11 MTBF Series	Development	04/74	06/75
129	Analysis & Prediction Report	AU	0	0	0	0	0	2,933.00 MTBF Series	Development	05/73	

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Inertial Reference

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
129	Demonstration Test Report	AUF	1	6	2,123	1,274	0	2,123.00 MTBF Series	Development	05/73	10/74
129	Production Sample Verification	AUF	1	2	2,364	1,419	0	2,364.00 MTBF Series	Production	10/75	05/76
129	Simulated Operation	AUF	0	0	1,606	0	0	2,317.46 MTBF Series	Development	07/72	11/74
129	Field Data and Operating Time	AUF	82	76	178,344	0	0	2,174.92 MTBF Functional	Operational	05/83	04/85
129	Field Data and Operating Time	AUF	158	0	178,344	0	0	1,128.75 MTBMA	Operational	05/83	04/85
129	Field Data and Operating Time	AUF	118	58	173,620	0	0	1,471.35 MTBF Functional	Operational	05/83	04/85
129	Field Data and Operating Time	AUF	176	0	173,620	0	0	986.47 MTBMA	Operational	05/83	04/85
328	Analysis & Prediction Report	AIC	0	0	0	0	0	4,924.00 MTBF Series	Development	10/76	03/77
328	Field Data and Operating Time	AIC	0	0	1,114	0	0	1,607.50 MTBF Functional	Operational	04/77	09/77
328	Field Data and Operating Time	AIC	5	0	29,328	0	0	5,865.60 MTBF Functional	Operational	10/77	03/78
328	Field Data and Operating Time	AIC	17	0	46,403	0	0	2,729.58 MTBF Functional	Operational	04/78	09/78
328	Field Data and Operating Time	AIC	57	0	106,914	0	0	1,875.68 MTBF Functional	Operational	10/78	03/79
328	Field Data and Operating Time	AIC	90	0	141,140	0	0	1,568.22 MTBF Functional	Operational	04/79	09/79
328	Field Data and Operating Time	AIC	121	0	277,362	0	0	2,292.24 MTBF Functional	Operational	06/83	05/85
344	Analysis & Prediction Report	AUA	0	0	0	0	0	5,169.00 MTBF Series	Development	06/83	05/85
344	Field Data and Operating Time	AUA	456	223	450,653	0	0	988.27 MTBF Functional	Operational	06/83	05/85
344	Field Data and Operating Time	AUA	689	0	450,653	0	0	654.06 MTBMA	Operational		

Guidance/Navigation, Interconnect/Distribute

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
27	Analysis & Prediction Report	AU	0	0	0	0	0	5,969.00 MTBF Series	Development	01/76	03/76
27	Demonstration Test Report	AU	2	1	7,127	4,287	10	3,563.50 MTBF Series	Development	01/76	04/76
27	Simulated Operation	AU	0	0	3,024	0	19	4,363.63 MTBF Series	Development	06/83	05/85
27	Field Data and Operating Time	AIC	202	0	1,022,625	0	0	5,062.50 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AIC	318	0	1,022,625	0	0	3,215.80 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AIC	37	12	97,060	0	0	2,623.24 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AIC	49	0	97,060	0	0	1,980.81 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	ARW	8	1	18,981	0	0	2,372.62 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	9	0	18,981	0	0	2,109.00 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	4	1	24,700	0	0	6,175.00 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	5	0	24,700	0	0	4,940.00 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	14	4	47,614	0	0	3,401.00 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	18	0	47,614	0	0	2,645.22 MTBMA	Operational	07/83	06/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Interconnect/Distribute

EQUIP ID	APP ENV	DATA SOURCE	APP RELEVANT	FAILURES NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
27	Field Data and Operating Time	ARW	22	6	51,206	0	0	2,327.54 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	ARW	28	0	51,206	0	0	1,828.78 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUA	2	7	18,222	0	66	9,111.00 MTBF Functional	Operational	04/77	10/77
27	Field Data and Operating Time	AUA	6	3	62,174	0	264	10,362.33 MTBF Functional	Operational	10/77	04/78
27	Field Data and Operating Time	AUA	64	42	152,192	0	0	2,378.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	6	5	17,122	0	0	2,853.66 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	106	0	152,192	0	0	1,435.77 MTBM	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	11	0	17,122	0	0	1,556.54 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	106	46	450,653	0	0	4,251.44 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	152	0	450,653	0	0	2,964.82 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	39	17	49,331	0	0	1,264.89 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	56	0	49,331	0	0	880.91 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	15	14	60,059	0	0	4,003.93 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUA	29	0	60,059	0	0	2,071.00 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUB	1	1	34,083	0	61	34,083.00 MTBF Functional	Operational	04/77	10/77
27	Field Data and Operating Time	AUB	12	3	95,807	0	266	7,983.91 MTBF Functional	Operational	10/77	04/78
27	Field Data and Operating Time	AUB	88	50	136,060	0	0	1,546.13 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUB	138	0	136,060	0	0	985.94 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUB	58	24	71,056	0	0	1,225.10 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUB	82	0	71,056	0	0	866.53 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	8	4	102,249	0	183	12,781.12 MTBF Functional	Operational	04/77	10/77
27	Field Data and Operating Time	AUC	35	7	136,868	0	380	3,910.51 MTBF Functional	Operational	10/77	04/78
27	Field Data and Operating Time	AUC	40	11	98,190	0	0	2,454.75 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	51	0	98,190	0	0	1,925.29 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	31	12	96,394	0	0	3,109.48 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	111	73	684,686	0	0	6,168.34 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	184	0	684,686	0	0	3,721.11 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	45	11	62,103	0	0	1,380.06 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	56	0	62,103	0	0	1,108.98 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	52	14	128,203	0	0	2,465.44 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	66	0	128,203	0	0	1,942.46 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	59	17	101,203	0	0	1,715.30 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	76	0	101,203	0	0	1,331.61 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	4	1	55,107	0	0	13,776.75 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	5	0	55,107	0	0	11,021.40 MTBMA	Operational	06/83	05/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Interconnect/Distribute

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SLS	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
27	Field Data and Operating Time	AUC	0	0	1,459	0	0	2,105.33 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	0	0	1,459	0	0	2,105.33 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	3	2	21,009	0	0	7,003.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	5	0	21,009	0	0	4,201.80 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	267	107	359,519	0	0	1,346.51 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	374	0	359,519	0	0	961.28 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	8	2	68,798	0	0	8,599.75 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	10	0	68,798	0	0	6,879.80 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	82	24	61,082	0	0	744.90 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	106	0	61,082	0	0	576.24 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	5	3	18,305	0	0	3,661.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	8	0	18,305	0	0	2,288.12 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	0	0	0	0	0	3,595.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	0	0	0	0	0	3,595.00 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	3	4	14,128	0	0	4,709.33 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	7	0	14,128	0	0	2,018.28 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	306	126	561,700	0	0	1,835.62 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	432	0	561,700	0	0	1,300.23 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUC	3	2	59,209	0	0	19,736.33 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUC	5	0	59,209	0	0	11,841.80 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	17	1	59,912	0	217	3,524.23 MTBF Functional	Operational	04/77	10/77
27	Field Data and Operating Time	AUF	7	6	61,939	0	263	8,948.42 MTBF Functional	Operational	10/77	04/78
27	Field Data and Operating Time	AUF	10	15	178,344	0	0	17,834.40 MTBF Functional	Operational	05/83	04/85
27	Field Data and Operating Time	AUF	25	0	178,344	0	0	7,133.76 MTBMA	Operational	05/83	04/85
27	Field Data and Operating Time	AUF	47	34	173,620	0	0	3,694.04 MTBF Functional	Operational	05/83	04/85
27	Field Data and Operating Time	AUF	81	0	173,620	0	0	2,143.45 MTBMA	Operational	05/83	04/85
27	Field Data and Operating Time	AUF	74	57	324,229	0	0	4,381.47 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	131	0	324,229	0	0	2,475.03 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	9	592	57,556	0	0	6,395.11 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	601	0	57,556	0	0	95.76 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	89	0	94,292	0	0	1,059.46 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	41	48	94,292	0	0	2,299.80 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	93	71	154,753	0	0	1,664.01 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	164	0	154,753	0	0	943.61 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	249	0	162,383	0	0	652.14 MTBMA	Operational	07/83	06/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Interconnect/Distribute

## RELIABILITY DATA

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
27	Field Data and Operating Time	AUF	116	133	162,383	0	0	1,399.85 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	195	86	23,570	0	0	120.87 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	281	0	23,570	0	0	83.87 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	29	8	49,969	0	0	1,723.06 MTBF Functional	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	37	0	49,969	0	0	1,350.51 MTBMA	Operational	07/83	06/85
27	Field Data and Operating Time	AUF	17	12	24,207	0	0	1,423.94 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	29	0	24,207	0	0	834.72 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	6	1	13,740	0	0	2,290.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	7	0	13,740	0	0	1,962.85 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	3	35	39,513	0	0	13,171.00 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	38	0	39,513	0	0	1,039.81 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	24	10	38,558	0	0	1,606.58 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	34	0	38,558	0	0	1,134.05 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	18	5	39,991	0	0	2,221.72 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	23	0	39,991	0	0	1,738.73 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	14	19	43,935	0	0	3,138.21 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	33	0	43,935	0	0	1,331.36 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	0	0	3,620	0	0	5,223.66 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	0	0	3,620	0	0	5,223.66 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	22	5	3,620	0	0	164.54 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUF	27	0	3,620	0	0	134.07 MTBMA	Operational	06/83	05/85
27	Field Data and Operating Time	AUT	22	3	155,933	0	565	7,087.86 MTBF Functional	Operational	04/77	10/77
27	Field Data and Operating Time	AUT	12	2	162,972	0	692	13,581.00 MTBF Functional	Operational	10/77	04/78
27	Field Data and Operating Time	AUT	18	3	55,483	0	0	3,082.38 MTBF Functional	Operational	06/83	05/85
27	Field Data and Operating Time	AUT	21	0	55,483	0	0	2,642.04 MTBMA	Operational	06/83	05/85
243	Analysis & Prediction Report	AUF	0	0	0	0	0	20,010.00 MTBF Series	Development		
243	Analysis & Prediction Report	AUF	0	0	0	0	0	23,486.00 MTBF Series	Development		
243	Demonstration Test Report	AUF	0	0	216	89	0	311.68 MTBF Series	Development	02/75	03/75
243	Demonstration Test Report	AUF	0	0	247	102	0	356.42 MTBF Series	Development	03/75	04/75
243	Demonstration Test Report	AUF	0	0	2,563	1,055	0	3,698.41 MTBF Series	Development	04/75	06/75
279	Field Data and Operating Time	AUC	52	22	96,394	0	0	1,853.73 MTBF Functional	Operational	06/83	05/85
279	Field Data and Operating Time	AUC	74	0	96,394	0	0	1,302.62 MTBMA	Operational	06/83	05/85
279	Field Data and Operating Time	AUC	51	26	97,060	0	0	1,903.13 MTBF Functional	Operational	06/83	05/85
279	Field Data and Operating Time	AUC	77	0	97,060	0	0	1,260.51 MTBMA	Operational	06/83	05/85
279	Field Data and Operating Time	AUC	217	172	511,313	0	0	2,356.28 MTBF Functional	Operational	06/83	05/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Interconnect/Distribute

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
279	Field Data and Operating Time	AUC	389	0	511,313	0	0	1,314.42 MTBF	Operational	06/83	05/85
279	Field Data and Operating Time	AUC	16	16	49,085	0	0	3,067.81 MTBF	Functional	06/83	05/85
279	Field Data and Operating Time	AUC	32	0	49,085	0	0	1,533.90 MTBF	Operational	06/83	05/85

Guidance/Navigation, Memory

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
135	Demonstration Test Report	AIF	0	2	1,428	3,164	0	2,060.60 MTBF	Series	08/75	03/76
135	Simulated Operation	AIF	12	0	2,255	0	0	187.91 MTBF	Series	07/72	11/74
135	Field Data and Operating Time	AUF	742	1,659	178,344	0	0	240.35 MTBF	Functional	05/83	04/85
135	Field Data and Operating Time	AUF	2,401	0	178,344	0	0	74.27 MTBF	Operational	05/83	04/85
135	Field Data and Operating Time	AUF	274	380	173,620	0	0	633.64 MTBF	Functional	05/83	04/85
135	Field Data and Operating Time	AUF	654	0	173,620	0	0	265.47 MTBF	Operational	05/83	04/85

Guidance/Navigation, Power Supply

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
258	Analysis & Prediction Report	AU	0	0	0	0	0	7,129.00 MTBF	Series	Development	
258	Analysis & Prediction Report	AU	0	0	0	0	0	15,334.00 MTBF	Series	Development	
258	Demonstration Test Report	AUF	0	0	216	89	0	311.68 MTBF	Series	Development	02/75 03/75
258	Demonstration Test Report	AUF	0	0	247	102	0	356.42 MTBF	Series	Development	03/75 04/75
258	Demonstration Test Report	AUF	0	0	2,563	1,055	0	3,698.41 MTBF	Series	Development	04/75 06/75

Guidance/Navigation, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
215	Analysis & Prediction Report	NSB	0	0	0	0	0	521.00 MTBF	Series	Development	
215	Demonstration Test Report	NSB	11	5	8,002	167	0	727.45 MTBF	Series	Development	07/74 12/74
215	Production Sample Verification	NSB	120	77	1,448	0	37	12.06 MTBF	Series	Production	01/74 03/75
215	Production Sample Verification	NSB	37	13	1,328	0	37	35.89 MTBF	Series	Production	02/74 02/75
215	Production Sample Verification	NSB	21	16	3,982	0	37	189.61 MTBF	Series	Production	02/74 02/75
215	Production Sample Verification	NSB	111	65	5,211	0	37	46.94 MTBF	Series	Production	02/74 03/75

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
215	Field Data and Operating Time	MSB	158	60	89,094	0	28	563.88 MTBF Functional	Operational	05/74	04/76
242	Analysis & Prediction Report	AUF	0	0	0	0	0	1,345.00 MTBF Series	Development		
242	Analysis & Prediction Report	AUF	0	0	0	0	0	1,517.00 MTBF Series	Development		
242	Analysis & Prediction Report	AUF	0	0	0	0	0	1,620.00 MTBF Series	Development		
242	Demonstration Test Report	AUF	2	0	216	89	0	108.00 MTBF Series	Development	02/75	03/75
242	Demonstration Test Report	AUF	1	0	247	102	0	247.00 MTBF Series	Development	03/75	04/75
242	Demonstration Test Report	AUF	2	0	2,563	1,055	0	1,281.50 MTBF Series	Development	04/75	06/75
313	Demonstration Test Report	AUF	4	0	4,970	0	11	1,242.50 MTBF Series	Development	10/76	11/76
313	Field Data and Operating Time	AT	111	0	55,483	0	0	499.84 MTBMA	Operational	06/83	05/85
313	Field Data and Operating Time	AUA	148	46	60,059	0	0	405.80 MTBF Functional	Operational	06/83	05/85
313	Field Data and Operating Time	AUA	194	0	60,059	0	0	309.58 MTBMA	Operational	06/83	05/85
313	Field Data and Operating Time	AUA	149	70	49,331	0	0	331.08 MTBF Functional	Operational	06/83	05/85
313	Field Data and Operating Time	AUA	219	0	49,331	0	0	225.25 MTBMA	Operational	06/83	05/85
313	Field Data and Operating Time	AUF	139	85	49,969	0	0	359.48 MTBF Functional	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	224	0	49,969	0	0	223.07 MTBMA	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	350	95	154,753	0	0	442.15 MTBF Functional	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	445	0	154,753	0	0	347.75 MTBMA	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	203	442	94,292	0	0	464.49 MTBF Functional	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	645	0	94,292	0	0	146.18 MTBMA	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	363	604	162,383	0	0	447.33 MTBF Functional	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	967	0	162,383	0	0	167.92 MTBMA	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	476	363	235,870	0	0	495.52 MTBF Functional	Operational	07/83	06/85
313	Field Data and Operating Time	AUF	839	0	235,870	0	0	281.13 MTBMA	Operational	07/83	06/85
313	Field Data and Operating Time	AUT	89	22	55,483	0	0	623.40 MTBF Functional	Operational	06/83	05/85
315	Contract Spec/Requirement	AUF	0	0	0	0	0	1,000.00 MTBF Series	Development		
315	Analysis & Prediction Report	AU	0	0	0	0	0	2,922.00 MTBF Series	Development		
315	Demonstration Test Report	AUF	0	0	0	0	0	1,135.00 MTBF Series	Development		
315	Field Data and Operating Time	AUF	130	99	178,344	0	0	1,371.87 MTBF Functional	Operational	05/83	04/85
315	Field Data and Operating Time	AUF	229	0	178,344	0	0	778.79 MTBMA	Operational	05/83	04/85



# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
278	Field Data and Operating Time	AUC	95	24	96,394	0	0	1,014.67 MTBF Functional	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	119	0	96,394	0	0	810.03 MTBMA	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	61	11	97,060	0	0	1,591.14 MTBF Functional	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	72	0	97,060	0	0	1,348.05 MTBMA	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	370	148	511,313	0	0	1,381.92 MTBF Functional	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	518	0	511,313	0	0	987.09 MTBMA	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	65	12	49,085	0	0	755.15 MTBF Functional	Operational	06/83	05/85
278	Field Data and Operating Time	AUC	77	0	49,085	0	0	637.46 MTBMA	Operational	06/83	05/85

Guidance/Navigation, Stellar Reference

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
394	Demonstration Test Report	AUF	0	0	0	0	0	400.00 MTBF Series	Development	06/83	05/85
394	Field Data and Operating Time	AUF	535	543	39,513	0	0	73.85 MTBF Functional	Operational	06/83	05/85
394	Field Data and Operating Time	AUF	1,078	0	39,513	0	0	36.65 MTBMA	Operational	06/83	05/85

Guidance/Navigation, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
28	Analysis & Prediction Report	AU	0	0	0	0	0	1,809.00 MTBF Series	Development	01/76	03/76
28	Demonstration Test Report	AU	5	9	7,127	4,287	10	1,425.40 MTBF Series	Development	01/76	04/76
28	Simulated Operation	AU	5	0	3,024	0	19	604.80 MTBF Series	Development	06/83	07/85
28	Field Data and Operating Time	AIC	72	21	98,190	0	0	1,363.75 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AIC	475	218	1,022,625	0	0	2,152.89 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AIC	93	0	98,190	0	0	1,055.80 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AIC	710	0	1,022,625	0	0	1,440.31 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AIC	61	23	97,060	0	0	1,591.14 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AIC	84	0	97,060	0	0	1,155.47 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	2	10	18,222	0	66	9,111.00 MTBF Functional	Operational	04/77	10/77
28	Field Data and Operating Time	AUA	23	15	62,174	0	264	2,703.21 MTBF Functional	Operational	10/77	04/78
28	Field Data and Operating Time	AUA	159	74	152,192	0	0	957.18 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	20	10	17,122	0	0	856.10 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	233	0	152,192	0	0	653.18 MTBMA	Operational	06/83	05/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	SIZE			START	END
28	Field Data and Operating Time	AUA	30	0	17,122	0	0	0	570.73 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	328	216	450,653	0	0	0	1,373.94 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	544	0	450,653	0	0	0	828.40 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	75	36	49,331	0	0	0	657.74 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	111	0	49,331	0	0	0	444.42 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	64	65	60,059	0	0	0	938.42 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUA	466	0	60,059	0	0	0	128.88 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUB	14	1	34,083	0	61	0	2,434.50 MTBF Functional	Operational	04/77	10/77
28	Field Data and Operating Time	AUB	22	10	95,807	0	266	0	4,354.86 MTBF Functional	Operational	10/77	04/78
28	Field Data and Operating Time	AUB	152	92	136,060	0	0	0	895.13 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUB	244	0	136,060	0	0	0	557.62 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUB	86	54	71,056	0	0	0	826.23 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUB	140	0	71,056	0	0	0	507.54 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUB	21	8	18,981	0	0	0	903.85 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	29	0	18,981	0	0	0	654.51 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	11	5	24,700	0	0	0	2,245.45 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	16	0	24,700	0	0	0	1,543.75 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	41	12	47,614	0	0	0	1,161.31 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	53	0	47,614	0	0	0	898.37 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	47	28	51,206	0	0	0	1,089.48 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUB	75	0	51,206	0	0	0	682.74 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	18	9	102,249	0	183	0	5,680.50 MTBF Functional	Operational	04/77	10/77
28	Field Data and Operating Time	AUC	44	12	136,868	0	380	0	3,110.63 MTBF Functional	Operational	10/77	04/78
28	Field Data and Operating Time	AUC	85	15	96,394	0	0	0	1,134.04 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	100	0	96,394	0	0	0	963.94 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	460	386	684,686	0	0	0	1,488.44 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	846	0	684,686	0	0	0	809.32 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	146	83	62,103	0	0	0	425.36 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	229	0	62,103	0	0	0	271.19 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	83	32	128,203	0	0	0	1,544.61 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	115	0	128,203	0	0	0	1,114.80 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	121	51	101,203	0	0	0	836.38 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	172	0	101,203	0	0	0	588.38 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	24	7	55,107	0	0	0	2,296.12 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	31	0	55,107	0	0	0	1,777.64 MTBMA	Operational	06/83	05/85

## EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
28	Field Data and Operating Time	AUC	1	0	1,459	0	0	1,459.00 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	1	0	1,459	0	0	1,459.00 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	8	3	21,009	0	0	2,626.12 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	11	0	21,009	0	0	1,909.90 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	531	250	359,519	0	0	677.06 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	781	0	359,519	0	0	460.33 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	53	21	68,798	0	0	1,298.07 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	74	0	68,798	0	0	929.70 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	119	41	61,082	0	0	513.29 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	160	0	61,082	0	0	381.76 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	13	9	18,305	0	0	1,408.07 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	22	0	18,305	0	0	832.04 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	1	0	5,187	0	0	5,187.00 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	1	0	5,187	0	0	5,187.00 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	4	5	14,128	0	0	3,532.00 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	9	0	14,128	0	0	1,569.77 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	476	206	561,700	0	0	1,180.04 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	682	0	561,700	0	0	823.60 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUC	9	10	59,209	0	0	6,578.77 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	19	0	59,209	0	0	3,116.26 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUC	26	7	59,912	0	217	2,304.30 MTBF Functional	Operational	04/77	10/77
28	Field Data and Operating Time	AUF	22	11	61,939	0	263	2,815.40 MTBF Functional	Operational	10/77	04/78
28	Field Data and Operating Time	AUF	72	35	178,344	0	0	2,477.00 MTBF Functional	Operational	05/83	04/85
28	Field Data and Operating Time	AUF	107	0	178,344	0	0	1,666.76 MTBMA	Operational	05/83	04/85
28	Field Data and Operating Time	AUF	203	109	173,620	0	0	855.27 MTBF Functional	Operational	05/83	04/85
28	Field Data and Operating Time	AUF	312	0	173,620	0	0	556.47 MTBMA	Operational	05/83	04/85
28	Field Data and Operating Time	AUF	240	175	324,229	0	0	1,350.95 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	415	0	324,229	0	0	781.27 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	43	396	57,556	0	0	1,338.51 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	439	0	57,556	0	0	131.10 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	171	0	94,292	0	0	551.41 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	119	0	94,292	0	0	792.36 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	282	136	154,753	0	0	548.76 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	418	0	154,753	0	0	370.22 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	320	222	162,382	0	0	507.44 MTBF Functional	Operational	07/83	06/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Transceiver

## RELIABILITY DATA

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
28	Field Data and Operating Time	AUF	542	0	162,382	0	0	299.59 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	782	265	235,870	0	0	301.62 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	1,047	0	235,870	0	0	225.28 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	118	35	49,969	0	0	423.46 MTBF Functional	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	153	0	49,969	0	0	326.59 MTBMA	Operational	07/83	06/85
28	Field Data and Operating Time	AUF	30	25	24,207	0	0	806.90 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	55	0	24,207	0	0	440.12 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	16	10	13,740	0	0	858.75 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	26	0	13,740	0	0	528.46 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	18	42	39,513	0	0	2,195.16 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	60	0	39,513	0	0	658.55 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	78	55	38,558	0	0	494.33 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	133	0	38,558	0	0	289.90 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	38	22	39,991	0	0	1,052.39 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	60	0	39,991	0	0	666.51 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	41	51	43,935	0	0	1,071.58 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	92	0	43,935	0	0	477.55 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	3	5	3,620	0	0	1,206.66 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	8	0	3,620	0	0	452.50 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	59	27	50,729	0	0	859.81 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUF	86	0	50,729	0	0	589.87 MTBMA	Operational	06/83	05/85
28	Field Data and Operating Time	AUT	63	10	155,993	0	565	2,476.07 MTBF Functional	Operational	04/77	10/77
28	Field Data and Operating Time	AUT	54	10	162,972	0	692	3,018.00 MTBF Functional	Operational	10/77	04/78
28	Field Data and Operating Time	AUT	38	20	55,483	0	0	1,460.07 MTBF Functional	Operational	06/83	05/85
28	Field Data and Operating Time	AUT	58	0	55,483	0	0	956.60 MTBMA	Operational	06/83	05/85
46	Analysis & Prediction Report	AU	0	0	0	0	0	1,036.00 MTBF Series	Development	10/74	06/75
46	Production Sample Verification	AUF	9	13	1,776	1,776	0	197.33 MTBF Series	Development	02/76	03/76
46	Production Sample Verification	AUF	3	3	2,144	2,144	0	714.66 MTBF Series	Development	07/76	08/76
46	Production Sample Verification	AUF	7	9	3,544	3,544	0	506.28 MTBF Series	Development	11/76	12/76
46	Production Sample Verification	AUF	1	1	1,521	1,521	0	1,521.00 MTBF Series	Development	07/72	11/74
46	Simulated Operation	AUF	8	0	1,615	0	0	201.87 MTBF Series	Development	04/74	06/75
46	Simulated Operation	AUF	3	0	1,518	0	0	506.00 MTBF Series	Operational	01/77	06/77
46	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	07/77	12/77
46	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	01/78	06/78
46	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational		

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Transceiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
46	Field Data and Operating Time	AUF	0	0	37,453	0	296	54,044.73 MTBM	Operational	07/78	12/78
46	Field Data and Operating Time	AUF	538	596	178,344	0	0	331.49 MTBF Functional	Operational	05/83	04/85
46	Field Data and Operating Time	AUF	1,134	0	178,344	0	0	157.26 MTBMA	Operational	05/83	04/85
233	Analysis & Prediction Report	GT	0	0	0	0	0	1,819.00 MTBF Series	Development		
233	Analysis & Prediction Report	GT	0	0	0	0	0	1,880.00 MTBF Series	Development	06/77	06/77
233	Demonstration Test Report	GT	0	0	215	0	0	310.24 MTBF Series	Development	06/77	07/77
233	Demonstration Test Report	GT	2	0	944	0	0	472.00 MTBF Series	Development	07/77	08/77
233	Demonstration Test Report	GT	2	0	793	0	0	396.50 MTBF Series	Development	09/77	09/77
233	Demonstration Test Report	GT	2	0	244	0	0	122.00 MTBF Series	Development	12/77	01/78
233	Demonstration Test Report	GT	0	0	1,290	0	0	1,861.47 MTBF Series	Development		
233	Simulated Operation	GT	2	0	100	0	0	50.00 MTBF Series	Development		
233	Field Data and Operating Time	GT	4	4	177,120	0	63	44,280.00 MTBF Functional	Operational	08/83	07/85
233	Field Data and Operating Time	GT	8	0	177,120	0	63	22,140.00 MTBMA	Operational	08/83	07/85
233	Field Data and Operating Time	GT	10	0	177,120	0	63	17,712.00 MTBM	Operational	08/83	07/85
338	Contract Spec/Requirement	AUA	0	0	0	0	0	2,500.00 MTBF Series	Development		
338	Analysis & Prediction Report	AUA	0	0	0	0	0	3,074.00 MTBF Series	Development		
338	Field Data and Operating Time	AUA	966	99	152,192	0	0	157.54 MTBF Functional	Operational	06/83	05/85
338	Field Data and Operating Time	AUA	1,065	0	152,192	0	0	142.90 MTBMA	Operational	06/83	05/85
338	Field Data and Operating Time	AUA	71	8	17,122	0	0	241.15 MTBF Functional	Operational	06/83	05/85
338	Field Data and Operating Time	AUA	79	0	17,122	0	0	216.73 MTBMA	Operational	06/83	05/85
387	Allocation/Apportion	AUB	0	0	0	0	0	3,900.00 MTBF Series	Development		
387	Analysis & Prediction Report	AUB	0	0	0	0	0	4,291.00 MTBF Series	Development		
387	Field Data and Operating Time	AUB	110	197	136,060	0	0	1,236.90 MTBF Functional	Operational	06/83	05/85
387	Field Data and Operating Time	AUB	307	0	136,060	0	0	443.19 MTBMA	Operational	06/83	05/85
387	Field Data and Operating Time	AUB	49	111	71,056	0	0	1,450.12 MTBF Functional	Operational	06/83	05/85
387	Field Data and Operating Time	AUB	160	0	71,056	0	0	444.10 MTBMA	Operational	06/83	05/85

Guidance/Navigation, Transducer

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
128	Analysis & Prediction Report	AU	0	0	0	0	0	31,368.00 MTBF Series	Development	05/73	
128	Demonstration Test Report	AUF	0	6	2,123	1,274	0	3,063.49 MTBF Series	Development	05/73	10/74
128	Production Sample Verification	AUF	0	0	2,364	1,419	0	3,411.25 MTBF Series	Production	10/75	05/76
128	Simulated Operation	AUF	0	0	1,606	0	0	2,317.46 MTBF Series	Development	07/72	11/74

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Guidance/Navigation, Transducer

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
128	Field Data and Operating Time	AUF	21	22	178,344	0	0	8,492.57 MTBF Functional	Operational	05/83	04/85
128	Field Data and Operating Time	AUF	43	0	178,344	0	0	4,147.53 MTBMA	Operational	05/83	04/85
128	Field Data and Operating Time	AUF	25	9	173,620	0	0	6,944.80 MTBF Functional	Operational	05/83	04/85
128	Field Data and Operating Time	AUF	34	0	173,620	0	0	5,106.47 MTBMA	Operational	05/83	04/85
131	Analysis & Prediction Report	AU	0	0	0	0	0	12,979.00 MTBF Series	Development	05/73	10/74
131	Demonstration Test Report	AUF	0	4	2,123	1,274	0	3,063.49 MTBF Series	Development	05/73	10/74
131	Production Sample Verification	AUF	1	2	2,364	1,419	0	2,364.00 MTBF Series	Production	10/75	05/76
131	Simulated Operation	AUF	0	0	1,606	0	0	2,317.46 MTBF Series	Development	07/72	11/74
131	Field Data and Operating Time	AUF	35	0	178,344	0	0	5,095.54 MTBMA	Operational	05/83	04/85
131	Field Data and Operating Time	AUF	11	24	178,344	0	0	16,213.09 MTBF Functional	Operational	05/83	04/85
131	Field Data and Operating Time	AUF	12	14	173,620	0	0	14,468.33 MTBF Functional	Operational	05/83	04/85
131	Field Data and Operating Time	AUF	26	0	173,620	0	0	6,677.69 MTBMA	Operational	05/83	04/85

Guidance/Navigation, Transmitter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
347	Contract Spec/Requirement	AUF	0	0	0	0	0	700.00 MTBF Series	Development		
347	Analysis & Prediction Report	AU	0	0	0	0	0	1,128.00 MTBF Series	Development		
347	Field Data and Operating Time	AUF	14	0	2,887	0	0	206.21 MTBF Functional	Operational	01/82	06/82

Radar,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
5	Analysis & Prediction Report	GF	0	0	0	0	0	155.00 MTBF Functional	Development	01/74	08/76
5	Analysis & Prediction Report	GF	0	0	0	0	0	187.00 MTBF Functional	Development	02/76	08/76
5	Demonstration Test Report	GF	1	0	319	0	0	319.00 MTBF Functional	Operational	12/76	12/76
5	Field Data and Operating Time	GF	85	9	17,520	0	0	206.11 MTBF Functional	Operational	08/83	07/85
5	Field Data and Operating Time	GF	94	0	17,520	0	0	186.38 MTBMA	Operational	08/83	07/85
5	Field Data and Operating Time	GF	283	0	17,520	0	0	61.90 MTBMA	Operational	08/83	07/85
84	Contract Spec/Requirement	AUF	0	0	0	0	0	60.00 MTBF Series	Production		
84	Allocation/Appportion	AUF	0	0	0	0	0	60.00 MTBF Series	Development		
84	Analysis & Prediction Report	AU	0	0	0	0	0	64.00 MTBF Series	Development		
84	Production Sample Verification	AUF	3	24	257	0	0	85.66 MTBF Series	Production	10/76	01/77

# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Reader

EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
				RELEVANT	NON-REL	OPERATE	NON-OP				START	END
	84	Simulated Operation	AUF	78	11	2,121	0	0	27.19 MTBF Series	Development	07/72	11/74
	84	Simulated Operation	AUF	36	0	1,863	0	0	51.75 MTBF Series	Development	04/74	06/75
	84	Field Data and Operating Time	AUF	688	0	18,044	0	161	26.22 MTBM	Operational	01/77	06/77
	84	Field Data and Operating Time	AUF	652	0	10,784	0	203	16.53 MTBM	Operational	07/77	09/77
	84	Field Data and Operating Time	AUF	425	0	13,686	0	202	32.20 MTBM	Operational	10/77	12/77
	84	Field Data and Operating Time	AUF	56	0	30,705	0	269	548.30 MTBM	Operational	01/78	06/78
	84	Field Data and Operating Time	AUF	109	0	37,453	0	296	343.60 MTBM	Operational	07/78	12/78
	84	Field Data and Operating Time	AUF	9,521	23,658	178,344	0	0	18.73 MTBF Functional	Operational	05/83	04/85
	84	Field Data and Operating Time	AUF	28,179	0	178,344	0	0	6.32 MTBMA	Operational	05/83	04/85
	84	Field Data and Operating Time	AUF	7,797	15,177	173,620	0	0	22.26 MTBF Functional	Operational	05/83	04/85
	84	Field Data and Operating Time	AUF	22,974	0	173,620	0	0	7.55 MTBMA	Operational	05/83	04/85
	100	Contract Spec/Requirement	AUF	0	0	0	0	0	30.00 MTBF Series	Development	11/73	09/74
	100	Analysis & Prediction Report	AU	0	0	0	0	0	65.00 MTBF Series	Development	11/73	09/74
	100	Demonstration Test Report	AUF	4	45	150	115	0	37.50 MTBF Series	Development	11/73	09/74
	200	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	05/74	05/74
	200	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	06/74	06/74
	200	Production Sample Verification	AIC	5	2	296	148	0	59.20 MTBF Series	Production	07/74	07/74
	200	Production Sample Verification	AIC	7	0	144	72	0	20.57 MTBF Series	Production	08/74	08/74
	200	Production Sample Verification	AIC	4	0	144	72	0	36.00 MTBF Series	Production	09/74	09/74
	200	Production Sample Verification	AIC	5	0	144	72	0	28.80 MTBF Series	Production	10/74	10/74
	200	Production Sample Verification	AIC	4	0	144	72	0	36.00 MTBF Series	Production	11/74	11/74
	200	Production Sample Verification	AiC	5	0	216	108	0	43.20 MTBF Series	Production	12/74	12/74
	200	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	01/75	01/75
	247	Allocation/Apportion	GF	0	0	0	0	0	377.00 MTBF Functional	Development		
	247	Analysis & Prediction Report	GF	0	0	0	0	0	16.70 MTBF Series	Development		
	247	Analysis & Prediction Report	GF	0	0	0	0	0	18,125.00 MTBF Functional	Development		
	247	Demonstration Test Report	AU	1	2	916	549	2	916.00 MTBF Series	Production	08/78	01/79
	247	Production Sample Verification	AU	0	5	956	573	2	1,379.50 MTBF Series	Production	04/79	10/79
	247	Field Data and Operating Time	GF	72	43	35,040	0	2	486.66 MTBF Functional	Operational	08/83	07/85
	247	Field Data and Operating Time	GF	115	0	35,040	0	2	304.69 MTBMA	Operational	08/83	07/85
	254	Contract Spec/Requirement	GF	0	0	0	0	0	11,906.00 MTBF Functional	Development		
	254	Analysis & Prediction Report	GF	0	0	0	0	0	50.30 MTBF Series	Development		
	254	Analysis & Prediction Report	GF	0	0	0	0	0	35,244.00 MTBF Functional	Development		
	254	Field Data and Operating Time	GF	977	986	35,040	0	2	35.86 MTBF Functional	Operational	08/83	07/85
	254	Field Data and Operating Time	GF	1,963	0	35,040	0	2	17.85 MTBMA	Operational	08/83	07/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
267	Contract Spec/Requirement	AUF	0	0	0	0	0	106.00 MTBF Series	Development		
267	Analysis & Prediction Report	AU	0	0	0	0	0	164.00 MTBF Series	Development		
267	Simulated Operation	AUF	0	0	100	0	1	144.30 MTBF Series	Production	11/80	11/80
267	Field Data and Operating Time	AUF	178	0	4,275	0	0	24.01 MTBF Functional	Operational	09/82	02/83
267	Field Data and Operating Time	AUF	82	0	4,853	0	0	59.18 MTBF Functional	Operational	07/82	12/82
267	Field Data and Operating Time	AUF	60	0	2,887	0	0	48.11 MTBF Functional	Operational	01/82	06/82
267	Field Data and Operating Time	AUF	26	0	1,106	0	0	42.53 MTBF Functional	Operational	02/81	12/81
316	Contract Spec/Requirement	AUF	0	0	0	0	0	100.00 MTBF Series	Production		
316	Contract Spec/Requirement	AUF	0	0	0	0	0	60.00 MTBF Series	Development	03/78	06/78
316	Analysis & Prediction Report	AUF	0	0	0	0	0	150.00 MTBF Series	Development		
316	Demonstration Test Report	AUF	13	0	721	0	0	55.46 MTBF Series	Development	04/78	06/78
316	Production Sample Verification	AUF	2	0	12	49	2	6.00 MTBF Series	Production	07/81	07/81
316	Production Sample Verification	AUF	5	18	75	161	4	15.00 MTBF Series	Production	11/80	01/81
316	Production Sample Verification	AUF	5	25	335	85	8	67.00 MTBF Series	Production	11/81	10/82
316	Production Sample Verification	AUF	2	0	271	129	5	135.50 MTBF Series	Production		
316	Production Sample Verification	AUF	6	0	229	135	5	38.16 MTBF Series	Production		
316	Production Sample Verification	AUF	4	0	80	112	5	20.00 MTBF Series	Production		
316	Field Data and Operating Time	AUF	4,597	9,994	303,981	0	0	66.12 MTBF Functional	Operational	05/83	04/85
316	Field Data and Operating Time	AUF	14,587	0	303,981	0	0	20.83 MTBMA	Operational	05/83	04/85
316	Field Data and Operating Time	AUF	883	1,892	53,220	0	0	60.27 MTBF Functional	Operational	05/83	04/85
316	Field Data and Operating Time	AUF	2,775	0	53,220	0	0	19.17 MTBMA	Operational	05/83	04/85
358	Contract Spec/Requirement	GF	0	0	0	0	0	300.00 MTBF Series	Development		
358	Analysis & Prediction Report	GF	0	0	0	0	0	357.00 MTBF Series	Development		
358	Field Data and Operating Time	GF	4,433	2,989	349,440	0	0	78.82 MTBF Functional	Operational	05/83	06/85
358	Field Data and Operating Time	GF	7,422	0	349,440	0	0	47.08 MTBMA	Operational	05/83	06/85
358	Field Data and Operating Time	GF	9,155	0	349,440	0	0	38.16 MTBM	Operational	05/83	06/85
379	Contract Spec/Requirement	AUF	0	0	0	0	0	9.00 MTBF Series	Development		
379	Analysis & Prediction Report	AUF	0	0	0	0	0	20.00 MTBF Series	Development		
379	Demonstration Test Report	AUF	0	0	0	0	0	4.30 MTBF Series	Development		
379	Field Data and Operating Time	AUF	26,078	46,980	235,870	0	0	9.04 MTBF Functional	Operational	07/83	06/85
379	Field Data and Operating Time	AUF	73,058	0	235,870	0	0	3.22 MTBMA	Operational	07/83	06/85
379	Field Data and Operating Time	AUF	5,348	15,767	49,970	0	0	9.34 MTBF Functional	Operational	07/83	06/85
379	Field Data and Operating Time	AUF	16,022	0	49,970	0	0	3.11 MTBMA	Operational	07/83	06/85
391	Contract Spec/Requirement	AUF	0	0	0	0	0	137.00 MTBF Series	Development		
391	Analysis & Prediction Report	AUF	0	0	0	0	0	178.00 MTBF Series	Development		



## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
391	Demonstration Test Report	AUF	0	0	0	0	0	152.00 MTBF Series	Development	06/83	05/85
391	Field Data and Operating Time	AUF	2	3	39,513	0	0	19,756.50 MTBF Functional	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	5	0	39,513	0	0	7,902.60 MTBMA	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	468	0	13,740	0	0	29.35 MTBF Functional	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	1,165	0	13,740	0	0	11.79 MTBMA	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	1,668	1,112	39,991	0	0	23.97 MTBF Functional	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	2,880	0	39,991	0	0	13.88 MTBMA	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	8	10	38,558	0	0	4,819.75 MTBF Functional	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	18	0	38,558	0	0	2,142.11 MTBMA	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	1,455	838	24,207	0	0	16.63 MTBF Functional	Operational	06/83	05/85
391	Field Data and Operating Time	AUF	2,293	0	24,207	0	0	10.55 MTBMA	Operational	06/83	05/85
393	Contract Spec/Requirement	AUF	0	0	0	0	0	137.00 MTBF Series	Development	06/83	05/85
393	Analysis & Prediction Report	AUF	0	0	0	0	0	185.00 MTBF Series	Development	06/83	05/85
393	Demonstration Test Report	AUF	0	0	0	0	0	212.00 MTBF Series	Development	06/83	05/85
393	Field Data and Operating Time	AUF	2,675	3,202	39,513	0	0	14.77 MTBF Functional	Operational	06/83	05/85
393	Field Data and Operating Time	AUF	5,877	0	39,513	0	0	6.72 MTBMA	Operational	06/83	05/85

Radar, Amplifier, Audio

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
201	Production Sample Verification	AIC	4	0	216	108	0	54.00 MTBF Series	Production	03/75	03/75
201	Production Sample Verification	AIC	1	0	72	36	0	72.00 MTBF Series	Production	04/75	04/75
201	Production Sample Verification	AIC	3	0	144	72	0	48.00 MTBF Series	Production	05/75	05/75
201	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	06/75	06/75
201	Production Sample Verification	AIC	2	0	72	36	0	36.00 MTBF Series	Production	07/75	07/75
201	Production Sample Verification	AIC	8	0	268	134	0	33.50 MTBF Series	Production	09/75	09/75
201	Production Sample Verification	AIC	4	0	84	42	0	21.00 MTBF Series	Production	10/75	10/75
201	Production Sample Verification	AIC	2	2	79	40	0	39.50 MTBF Series	Production	11/75	11/75
201	Production Sample Verification	AIC	7	0	83	42	0	11.85 MTBF Series	Production	12/75	12/75
201	Production Sample Verification	AIC	5	1	78	39	0	15.60 MTBF Series	Production	01/76	01/76
201	Production Sample Verification	AIC	4	2	81	40	0	20.25 MTBF Series	Production	03/76	03/76
201	Production Sample Verification	AIC	10	0	91	45	0	9.10 MTBF Series	Production	04/76	04/76

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Amplifier, RF

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
13	GF	Analysis & Prediction Report	0	0	0	0	0	373.00 MTBF Series	Development	08/83	07/85
13	GF	Field Data and Operating Time	8	6	17,520	0	0	2,190.00 MTBF Functional	Operational	08/83	07/85
13	GF	Field Data and Operating Time	14	0	17,520	0	0	1,251.42 MTBMA	Operational	08/83	07/85
13	GF	Field Data and Operating Time	21	0	17,520	0	0	834.28 MTBM	Operational	08/83	07/85
14	GF	Analysis & Prediction Report	0	0	0	0	0	420.00 MTBF Series	Development	08/83	07/85
14	GF	Field Data and Operating Time	3	0	17,520	0	0	5,840.00 MTBF Functional	Operational	08/83	07/85
14	GF	Field Data and Operating Time	3	0	17,520	0	0	5,840.00 MTBMA	Operational	08/83	07/85
14	GF	Field Data and Operating Time	10	0	17,520	0	0	1,752.00 MTBM	Operational	08/83	07/85
17	GF	Analysis & Prediction Report	0	0	0	0	0	2,943.00 MTBF Series	Development	01/74	
17	GF	Field Data and Operating Time	33	2	210,240	0	0	6,370.90 MTBF Functional	Operational	08/83	07/85
17	GF	Field Data and Operating Time	35	0	210,240	0	0	6,006.85 MTBMA	Operational	08/83	07/85
17	GF	Field Data and Operating Time	35	0	210,240	0	0	6,006.85 MTBM	Operational	08/83	07/85
249	GF	Analysis & Prediction Report	0	0	0	0	0	175,901.00 MTBF Series	Development	08/83	07/85
249	GF	Field Data and Operating Time	3	0	350,400	0	20	116,800.00 MTBMA	Operational	08/83	07/85
249	GF	Field Data and Operating Time	3	0	350,400	0	20	116,800.00 MTBF Functional	Operational	08/83	07/85

Radar, Antenna

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
12	GF	Allocation/Apportion	0	0	0	0	0	7.78 MTBF Series	Development	02/76	08/76
12	GF	Allocation/Apportion	0	0	0	0	0	4,561.00 MTBF Functional	Development	08/83	07/85
12	GF	Analysis & Prediction Report	0	0	0	0	0	7.86 MTBF Series	Development	08/83	07/85
12	GF	Analysis & Prediction Report	0	0	0	0	0	3,971.00 MTBF Functional	Development	08/83	07/85
12	GF	Field Data and Operating Time	0	184	349,944	0	0	504,969.69 MTBF Functional	Operational	02/76	08/76
12	GF	Field Data and Operating Time	29	0	17,520	0	0	604.13 MTBMA	Operational	08/83	07/85
91	AUF	Allocation/Apportion	0	0	0	0	0	556.00 MTBF Series	Development	08/83	07/85
91	AU	Analysis & Prediction Report	0	0	0	0	0	612.00 MTBF Series	Development	10/76	01/77
91	AUF	Production Sample Verification	1	3	257	0	0	257.00 MTBF Series	Production	07/72	11/74
91	AUF	Simulated Operation	12	0	1,957	0	0	163.08 MTBF Series	Development	07/72	11/74
91	AUF	Field Data and Operating Time	1,261	1,205	178,344	0	0	141.43 MTBF Functional	Operational	05/83	04/85
91	AUF	Field Data and Operating Time	2,466	0	178,344	0	0	72.32 MTBMA	Operational	05/83	04/85
91	AUF	Field Data and Operating Time	1,029	903	173,620	0	0	168.72 MTBF Functional	Operational	05/83	04/85
91	AUF	Field Data and Operating Time	1,932	0	173,620	0	0	89.86 MTBMA	Operational	05/83	04/85
101	AU	Analysis & Prediction Report	0	0	0	0	0	612.00 MTBF Series	Development	11/73	09/74

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
101	Demonstration Test Report	AUF	0	2	150	115	0	216.45 MTBF Series	Development	11/73	09/74
202	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	05/74	05/74
202	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	06/74	06/74
202	Production Sample Verification	AUC	0	0	296	148	0	427.12 MTBF Series	Production	07/74	07/74
202	Production Sample Verification	AUC	0	0	432	216	0	623.37 MTBF Series	Production	08/74	08/74
202	Production Sample Verification	AUC	0	0	288	144	0	415.58 MTBF Series	Production	09/74	09/74
202	Production Sample Verification	AUC	1	0	288	144	0	288.00 MTBF Series	Production	10/74	10/74
202	Production Sample Verification	AUC	0	0	432	216	0	623.37 MTBF Series	Production	11/74	11/74
202	Production Sample Verification	AUC	1	0	576	288	0	576.00 MTBF Series	Production	12/74	12/74
202	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	01/75	01/75
203	Production Sample Verification	AUC	1	0	432	216	0	432.00 MTBF Series	Production	03/75	03/75
203	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	04/75	04/75
203	Production Sample Verification	AUC	0	0	288	144	0	415.58 MTBF Series	Production	05/75	05/75
203	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	06/75	06/75
203	Production Sample Verification	AUC	0	0	148	74	0	213.56 MTBF Series	Production	07/75	07/75
203	Production Sample Verification	AUC	0	0	456	228	0	658.00 MTBF Series	Production	09/75	09/75
203	Production Sample Verification	AUC	2	0	163	81	0	81.50 MTBF Series	Production	10/75	10/75
203	Production Sample Verification	AUC	0	0	158	79	0	227.99 MTBF Series	Production	11/75	11/75
203	Production Sample Verification	AUC	0	0	166	83	0	239.53 MTBF Series	Production	12/75	12/75
203	Production Sample Verification	AUC	0	1	156	78	0	225.10 MTBF Series	Production	01/76	01/76
203	Production Sample Verification	AUC	0	0	162	81	0	233.76 MTBF Series	Production	03/76	03/76
203	Production Sample Verification	AUC	1	0	182	91	0	182.00 MTBF Series	Production	04/76	04/76
317	Field Data and Operating Time	AUF	636	421	303,981	0	0	477.95 MTBF Functional	Operational	05/83	04/85
317	Field Data and Operating Time	AUF	1,057	0	303,981	0	0	287.58 MTBMA	Operational	05/83	04/85
317	Field Data and Operating Time	AUF	92	104	53,220	0	0	578.47 MTBF Functional	Operational	05/83	04/85
317	Field Data and Operating Time	AUF	196	0	53,220	0	0	271.53 MTBMA	Operational	05/83	04/85
346	Contract Spec/Requirement	AUF	0	0	0	0	0	700.00 MTBF Series	Development		
346	Analysis & Prediction Report	AU	0	0	0	0	0	1,370.00 MTBF Series	Development		
346	Field Data and Operating Time	AUF	0	0	0	0	0	2,887.00 MTBF Functional	Operational	01/82	06/82
357	Analysis & Prediction Report	GF	0	0	0	0	0	104.00 MTBF Series	Development		
357	Field Data and Operating Time	GF	10	0	17,520	0	0	1,752.00 MTBF Functional	Operational	08/83	07/85
357	Field Data and Operating Time	GF	10	0	17,520	0	0	1,752.00 MTBMA	Operational	08/83	07/85
357	Field Data and Operating Time	GF	55	0	17,520	0	0	318.54 MTBM	Operational	08/83	07/85
359	Analysis & Prediction Report	GF	0	0	0	0	0	49,920.00 MTBF Series	Development		
359	Field Data and Operating Time	GF	302	0	349,440	0	0	1,157.08 MTBMA	Operational	05/83	06/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Radar, Antenna

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
359	Field Data and Operating Time	GF	184	118	349,440	0	0	1,899.13 MTBF Functional	Operational	05/83	06/85
359	Field Data and Operating Time	GF	400	0	349,440	0	0	873.60 MTBM	Operational	05/83	06/85
360	Analysis & Prediction Report	GF	0	0	0	0	0	47,547.00 MTBF Series	Development		
360	Field Data and Operating Time	GF	263	218	349,440	0	0	1,328.66 MTBF Functional	Operational	05/83	06/85
360	Field Data and Operating Time	GF	481	0	349,440	0	0	726.48 MTBMA	Operational	05/83	06/85
360	Field Data and Operating Time	GF	621	0	349,440	0	0	562.70 MTBM	Operational	05/83	06/85

### Radar, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
6	Allocation/Apportion	GF	0	0	0	0	0	400.00 MTBF Series	Development		
6	Allocation/Apportion	GF	0	0	0	0	0	1,250.00 MTBF Functional	Development		
6	Analysis & Prediction Report	GF	0	0	0	0	0	459.00 MTBF Series	Development		
6	Field Data and Operating Time	GF	0	1	3,614	0	0	5,215.00 MTBF Functional	Operational	02/76	08/76
6	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBF Functional	Operational	08/83	07/85
6	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBMA	Operational	08/83	07/85
6	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBM	Operational	08/83	07/85
195	Contract Spec/Requirement	AUF	0	0	0	0	0	416.00 MTBF Series	Development		
195	Production Sample Verification	AUF	0	1	150	75	0	216.45 MTBF Series	Production	07/77	07/77
195	Production Sample Verification	AUF	0	1	150	75	0	216.45 MTBF Series	Production	08/77	08/77
195	Production Sample Verification	AUF	0	4	70	35	0	101.01 MTBF Series	Production	09/77	09/77
195	Production Sample Verification	AUF	0	2	196	98	0	282.82 MTBF Series	Production	10/77	10/77
195	Production Sample Verification	AUF	2	2	348	174	0	174.00 MTBF Series	Production	11/77	11/77
195	Production Sample Verification	AUF	0	1	246	123	0	354.97 MTBF Series	Production	12/77	12/77
195	Production Sample Verification	AUF	1	3	194	97	0	194.00 MTBF Series	Production	01/78	01/78
195	Production Sample Verification	AUF	0	0	96	48	0	138.52 MTBF Series	Production	02/78	02/78
195	Production Sample Verification	AUF	0	3	103	52	0	148.62 MTBF Series	Production	03/78	03/78
195	Production Sample Verification	AUF	1	1	247	124	0	247.00 MTBF Series	Production	04/78	04/78
195	Production Sample Verification	AUF	1	0	350	175	0	350.00 MTBF Series	Production	05/78	05/78
195	Production Sample Verification	AUF	1	4	350	175	0	350.00 MTBF Series	Production	06/78	06/78
195	Production Sample Verification	AUF	1	2	450	225	0	450.00 MTBF Series	Production	07/78	07/78
195	Production Sample Verification	AUF	0	1	250	125	0	360.75 MTBF Series	Production	08/78	08/78
195	Simulated Operation	AUF	6	0	1,070	0	0	178.33 MTBF Series	Development	07/76	08/76
195	Field Data and Operating Time	AUF	535	397	44,969	0	0	84.05 MTBF Functional	Operational	07/83	06/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Computer (CPU)

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
195	Field Data and Operating Time	AUF	932	0	49,969	0	0	53.61 MTBMA	Operational	07/83	06/85
256	Analysis & Prediction Report	GF	0	0	0	0	0	850.00 MTBF Series	Development		
256	Field Data and Operating Time	GF	134	262	35,040	0	2	261.49 MTBF Functional	Operational	08/83	07/85
256	Field Data and Operating Time	GF	396	0	35,040	0	2	88.48 MTBMA	Operational	08/83	07/85
259	Contract Spec/Requirement	GF	0	0	0	0	0	432.00 MTBF Series	Development		
259	Analysis & Prediction Report	GF	0	0	0	0	0	3,411.00 MTBF Series	Development		
259	Field Data and Operating Time	GF	13	9	35,040	0	2	2,695.38 MTBF Functional	Operational	08/83	07/85
259	Field Data and Operating Time	GF	22	0	35,040	0	2	1,592.72 MTBMA	Operational	08/83	07/85
260	Contract Spec/Requirement	GF	0	0	0	0	0	41,754.00 MTBF Functional	Development		
260	Allocation/Apportion	GF	0	0	0	0	0	125.00 MTBF Series	Development		
260	Analysis & Prediction Report	GF	0	0	0	0	0	169.00 MTBF Series	Development		
260	Analysis & Prediction Report	GF	0	0	0	0	0	87,000.00 MTBF Functional	Development		
260	Field Data and Operating Time	GF	678	0	35,040	0	2	51.68 MTBMA	Operational	08/83	07/85
260	Field Data and Operating Time	GF	413	265	35,040	0	2	84.84 MTBF Functional	Operational	08/83	07/85
321	Field Data and Operating Time	AUF	449	623	303,981	0	0	677.01 MTBF Functional	Operational	05/83	04/85
321	Field Data and Operating Time	AUF	1,072	0	303,981	0	0	283.56 MTBMA	Operational	05/83	04/85
321	Field Data and Operating Time	AUF	79	129	53,220	0	0	673.67 MTBF Functional	Operational	05/83	04/85
321	Field Data and Operating Time	AUF	208	0	53,220	0	0	255.86 MTBMA	Operational	05/83	04/85
350	Contract Spec/Requirement	AUF	0	0	0	0	0	300.00 MTBF Series	Development		
350	Analysis & Prediction Report	AU	0	0	0	0	0	426.00 MTBF Series	Development		
350	Field Data and Operating Time	AUF	8	0	2,887	0	0	360.87 MTBF Functional	Operational	01/82	06/82

Radar, Converter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
11	Allocation/Apportion	GF	0	0	0	0	0	588.00 MTBF Series	Development		
11	Allocation/Apportion	GF	0	0	0	0	0	588.00 MTBF Functional	Development		
11	Analysis & Prediction Report	GF	0	0	0	0	0	588.00 MTBF Series	Development		
11	Field Data and Operating Time	GF	7	2	3,254	0	0	464.85 MTBF Functional	Operational	02/76	08/76
11	Field Data and Operating Time	GF	2	0	17,520	0	0	8,760.00 MTBF Functional	Operational	08/83	07/85
11	Field Data and Operating Time	GF	2	0	17,520	0	0	8,760.00 MTBMA	Operational	08/83	07/85
11	Field Data and Operating Time	GF	2	0	17,520	0	0	8,760.00 MTBMA	Operational	08/83	07/85
361	Analysis & Prediction Report	GF	0	0	0	0	0	9,475.00 MTBF Series	Development		
361	Field Data and Operating Time	GF	170	117	349,440	0	0	2,055.52 MTBF Functional	Operational	05/83	06/85

## RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Converter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
361	Field Data and Operating Time	GF	287	0	349,440	0	0	1,217.56 MTBMA	Operational	05/83	06/85
361	Field Data and Operating Time	GF	340	0	349,440	0	0	1,027.76 MTBMA	Operational	05/83	06/85
376	Analysis & Prediction Report	GF	0	0	0	0	0	1,704.00 MTBF Series	Development		
376	Field Data and Operating Time	GF	106	83	349,440	0	0	3,296.60 MTBF Functional	Operational	05/83	06/85
376	Field Data and Operating Time	GF	189	0	349,440	0	0	1,848.88 MTBMA	Operational	05/83	06/85
376	Field Data and Operating Time	GF	269	0	349,440	0	0	1,299.03 MTBMA	Operational	05/83	06/85

Radar, Frequency/Timing Gen.

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
8	Analysis & Prediction Report	GF	0	0	0	0	0	5,000.00 MTBF Series	Development	08/83	07/85
8	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBF Functional	Operational	08/83	07/85
8	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBMA	Operational	08/83	07/85
8	Field Data and Operating Time	GF	1	0	17,520	0	0	17,520.00 MTBMA	Operational	08/83	07/85
96	Allocation/Portion	AUF	0	0	0	0	0	390.00 MTBF Series	Development		
96	Analysis & Prediction Report	AU	0	0	0	0	0	422.00 MTBF Series	Development		
96	Production Sample Verification	AUF	0	3	257	0	0	370.85 MTBF Series	Production	10/76	01/77
96	Simulated Operation	AUF	7	0	1,891	0	0	270.14 MTBF Series	Development	07/72	11/74
96	Simulated Operation	AUF	5	0	1,775	0	0	355.00 MTBF Series	Development	04/74	06/75
96	Field Data and Operating Time	AUF	393	369	178,344	0	0	453.80 MTBF Functional	Operational	05/83	04/85
96	Field Data and Operating Time	AUF	762	0	178,344	0	0	234.04 MTBMA	Operational	05/83	04/85
96	Field Data and Operating Time	AUF	303	186	173,620	0	0	573.00 MTBF Functional	Operational	05/83	04/85
96	Field Data and Operating Time	AUF	489	0	173,620	0	0	355.05 MTBMA	Operational	05/83	04/85
106	Analysis & Prediction Report	AU	0	0	0	0	0	422.00 MTBF Series	Development	11/73	09/74
106	Demonstration Test Report	AUF	0	0	150	115	0	216.45 MTBF Series	Development	11/73	09/74
106	Simulated Operation	AUF	4	0	0	0	0	0.00 MTBF Series	Development	07/72	11/74
181	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
181	Simulated Operation	AUF	5	0	939	0	0	187.80 MTBF Series	Development	07/76	08/76
181	Field Data and Operating Time	AUF	562	297	49,969	0	0	88.91 MTBF Functional	Operational	07/83	06/85
181	Field Data and Operating Time	AUF	861	0	49,969	0	0	58.03 MTBMA	Operational	07/83	06/85
266	Allocation/Portion	GF	0	0	0	0	0	407.00 MTBF Series	Development		
266	Analysis & Prediction Report	GF	0	0	0	0	0	1,350.00 MTBF Series	Development		
266	Field Data and Operating Time	GF	28	0	70,080	0	4	2,502.85 MTBMA	Operational	08/83	07/85
266	Field Data and Operating Time	GF	17	11	70,080	0	4	4,122.35 MTBF Functional	Operational	08/83	07/85

# BERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
18	Analysis & Prediction Report	GF	0	0	0	0	0	7,556.00 MTBF Series	Development	01/74	
18	Field Data and Operating Time	GF	10	0	210,240	0	0	21,024.00 MTBF Functional	Operational	08/83	07/85
18	Field Data and Operating Time	GF	10	0	210,240	0	0	21,024.00 MTBMA	Operational	08/83	07/85
18	Field Data and Operating Time	GF	10	0	210,240	0	0	21,024.00 MTBH	Operational	08/83	07/85
22	Analysis & Prediction Report	GF	0	0	0	0	0	4,340.00 MTBF Series	Development	01/74	
22	Field Data and Operating Time	GF	22	7	17,520	0	0	796.36 MTBF Functional	Operational	08/83	07/85
22	Field Data and Operating Time	GF	3	0	17,520	0	0	5,840.00 MTBF Functional	Operational	08/83	07/85
22	Field Data and Operating Time	GF	3	0	17,520	0	0	5,840.00 MTBMA	Operational	08/83	07/85
22	Field Data and Operating Time	GF	4	0	17,520	0	0	4,380.00 MTBH	Operational	08/83	07/85
24	Analysis & Prediction Report	GF	0	0	0	0	0	90,909.00 MTBF Series	Development	01/74	
24	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBF Functional	Operational	08/83	07/85
24	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBMA	Operational	08/83	07/85
24	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBH	Operational	08/83	07/85
26	Analysis & Prediction Report	AI	0	0	0	0	0	35,587.00 MTBF Series	Development		
26	Demonstration Test Report	AI	0	0	7,127	4,287	10	10,284.27 MTBF Series	Development	01/76	03/76
26	Simulated Operation	AI	0	0	3,024	0	19	4,363.63 MTBF Series	Development	01/76	04/76
26	Field Data and Operating Time	AIA	1	13	18,222	0	66	18,222.00 MTBF Functional	Operational	04/77	10/77
26	Field Data and Operating Time	AIA	6	26	62,174	0	264	10,362.33 MTBF Functional	Operational	10/77	04/78
26	Field Data and Operating Time	AIA	118	24	152,192	0	0	1,289.76 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	18	7	17,122	0	0	951.22 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	142	0	152,192	0	0	1,071.77 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	25	0	17,122	0	0	684.88 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	222	89	450,653	0	0	2,029.96 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	311	0	450,653	0	0	1,449.04 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	20	2	49,331	0	0	2,466.55 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	27	0	49,331	0	0	1,827.07 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	6	6	60,059	0	0	10,009.83 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIA	12	0	60,059	0	0	5,004.91 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIB	1	1	34,083	0	61	34,083.00 MTBF Functional	Operational	04/77	10/77
26	Field Data and Operating Time	AIB	4	10	95,807	0	266	23,951.75 MTBF Functional	Operational	10/77	04/78
26	Field Data and Operating Time	AIB	41	19	136,060	0	0	3,318.53 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIB	60	0	136,060	0	0	2,267.66 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIB	20	16	71,056	0	0	3,552.80 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIB	36	0	71,056	0	0	1,973.77 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	0	5	102,249	0	183	147,545.45 MTBF Functional	Operational	04/77	10/77

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC		START	END
26	Field Data and Operating Time	AIC	7	14	136,868	0	380	19,552.57 MTBF	Functional	10/77	04/78
26	Field Data and Operating Time	AIC	28	8	98,190	0	0	3,506.78 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	36	0	98,190	0	0	2,727.50 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	154	84	1,022,625	0	0	6,640.42 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	238	0	1,022,625	0	0	4,296.74 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	27	5	97,060	0	0	3,594.81 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	32	0	97,060	0	0	3,033.12 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	15	5	96,394	0	0	6,426.26 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	20	0	96,394	0	0	4,819.70 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	200	62	684,686	0	0	3,423.43 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	262	0	684,686	0	0	2,613.30 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	32	5	62,103	0	0	1,940.71 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	37	0	62,103	0	0	1,678.45 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	6	5	128,203	0	0	21,367.16 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	11	0	128,203	0	0	11,654.81 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	73	16	101,203	0	0	1,386.34 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	89	0	101,203	0	0	1,137.11 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	13	3	55,107	0	0	4,239.00 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	16	0	55,107	0	0	3,444.18 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	1	0	1,459	0	0	1,459.00 MTBF	Functional	07/83	06/85
26	Field Data and Operating Time	AIC	1	0	1,459	0	0	1,459.00 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIC	2	1	21,009	0	0	10,504.50 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	3	0	21,009	0	0	7,003.00 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	84	30	359,519	0	0	4,279.98 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	114	0	359,519	0	0	3,153.67 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	7	3	68,798	0	0	9,828.28 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	10	0	68,798	0	0	6,879.80 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	30	7	61,082	0	0	2,036.06 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	37	0	61,082	0	0	1,650.86 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	2	1	18,305	0	0	9,152.50 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	3	0	18,305	0	0	6,101.66 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	0	0	0	0	0	3,595.00 MTBF	Functional	06/83	05/85
26	Field Data and Operating Time	AIC	0	0	0	0	0	3,595.00 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	4	0	14,128	0	0	3,532.00 MTBF	Functional	07/83	06/85
26	Field Data and Operating Time	AIC	4	0	14,128	0	0	3,532.00 MTBMA	Operational	07/83	06/85



# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
26	Field Data and Operating Time	AIC	227	70	561,700	0	0	2,474.44 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIC	297	0	561,700	0	0	1,891.24 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIC	0	0	59,209	0	0	85,438.67 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIC	0	0	59,209	0	0	85,438.67 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	3	11	59,912	0	217	19,970.66 MTBF Functional	Operational	04/77	10/77
26	Field Data and Operating Time	AIF	6	9	61,939	0	263	10,323.16 MTBF Functional	Operational	10/77	04/78
26	Field Data and Operating Time	AIF	213	105	324,229	0	0	1,522.20 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	328	0	324,229	0	0	988.50 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	57	38	57,556	0	0	1,009.75 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	95	0	57,556	0	0	605.85 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	84	0	94,292	0	0	1,122.52 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	58	26	94,292	0	0	1,625.72 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	271	46	154,753	0	0	571.04 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	317	0	154,753	0	0	488.17 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	250	72	162,383	0	0	649.53 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	322	0	162,383	0	0	504.29 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	545	115	235,870	0	0	432.78 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	660	0	235,870	0	0	357.37 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	98	8	49,969	0	0	509.88 MTBF Functional	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	106	0	49,969	0	0	471.40 MTBMA	Operational	07/83	06/85
26	Field Data and Operating Time	AIF	10	3	24,207	0	0	2,420.70 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	13	0	24,207	0	0	1,862.07 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	8	5	13,740	0	0	1,717.50 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	13	0	13,740	0	0	1,056.92 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	2	14	39,513	0	0	19,756.50 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	16	0	39,513	0	0	2,469.56 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	34	11	38,558	0	0	1,134.05 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	45	0	38,558	0	0	856.84 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	14	4	39,991	0	0	2,856.50 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	18	0	39,991	0	0	2,221.72 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	3	8	43,935	0	0	14,645.00 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	11	0	43,935	0	0	3,994.09 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	1	0	3,620	0	0	3,620.00 MTBF Functional	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	1	0	3,620	0	0	3,620.00 MTBMA	Operational	06/83	05/85
26	Field Data and Operating Time	AIF	21	5	50,729	0	0	2,415.66 MTBF Functional	Operational	06/83	05/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP	APP	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
26	AIF	Field Data and Operating Time	26	0	50,729	0	0	1,951.11 MTBMA	Operational	06/83	05/85
26	AIT	Field Data and Operating Time	10	19	341,434	0	1,128	34,143.40 MTBF Functional	Operational	04/77	10/77
26	AIT	Field Data and Operating Time	7	18	319,349	0	1,356	45,621.28 MTBF Functional	Operational	10/77	04/78
26	AIT	Field Data and Operating Time	6	2	55,483	0	0	9,247.16 MTBF Functional	Operational	06/83	05/85
26	AIT	Field Data and Operating Time	8	0	55,483	0	0	6,935.37 MTBMA	Operational	06/83	05/85
26	ARW	Field Data and Operating Time	3	1	18,981	0	0	6,327.00 MTBF Functional	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	4	0	18,981	0	0	4,745.25 MTBMA	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	6	1	24,700	0	0	4,116.66 MTBF Functional	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	7	0	24,700	0	0	3,528.57 MTBMA	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	14	3	47,614	0	0	3,401.00 MTBF Functional	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	17	0	47,614	0	0	2,800.82 MTBMA	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	21	14	51,206	0	0	2,438.38 MTBF Functional	Operational	07/83	06/85
26	ARW	Field Data and Operating Time	35	0	51,206	0	0	1,463.02 MTBMA	Operational	07/83	06/85
92	AI	Analysis & Prediction Report	0	0	0	0	0	4,425.00 MTBF Series	Development	11/73	09/74
92	AI	Analysis & Prediction Report	0	0	0	0	0	4,100.00 MTBF Series	Development	10/76	01/77
92	AIF	Production Sample Verification	0	2	257	0	0	370.85 MTBF Series	Production	07/72	11/74
92	AIF	Simulated Operation	0	0	1,864	0	0	2,689.75 MTBF Series	Development	05/83	04/85
92	AIF	Field Data and Operating Time	99	114	178,344	0	0	1,801.45 MTBF Functional	Operational	05/83	04/85
92	AIF	Field Data and Operating Time	213	0	178,344	0	0	837.29 MTBMA	Operational	05/83	04/85
92	AIF	Field Data and Operating Time	92	156	173,620	0	0	1,887.17 MTBF Functional	Operational	05/83	04/85
92	AIF	Field Data and Operating Time	248	0	173,620	0	0	700.08 MTBMA	Operational	05/83	04/85
102	AI	Analysis & Prediction Report	0	0	0	0	0	4,100.00 MTBF Series	Development	11/73	09/74
102	AI	Analysis & Prediction Report	0	0	0	0	0	4,425.00 MTBF Series	Development	11/73	09/74
102	AIF	Demonstration Test Report	0	1	150	115	0	216.45 MTBF Series	Development	01/78	04/78
186	AUF	Production Sample Verification	0	0	720	0	24	1,038.96 MTBF Series	Production	07/76	08/76
186	AUF	Simulated Operation	0	0	1,344	0	0	1,939.39 MTBF Series	Development	07/83	06/85
186	AUF	Field Data and Operating Time	151	86	49,969	0	0	330.92 MTBF Functional	Operational	07/83	06/85
186	AUF	Field Data and Operating Time	237	0	49,969	0	0	210.83 MTBMA	Operational	05/74	05/74
204	AIC	Production Sample Verification	0	0	72	36	0	103.89 MTBF Series	Production	06/74	06/74
204	AIC	Production Sample Verification	0	0	72	36	0	103.89 MTBF Series	Production	07/74	07/74
204	AIC	Production Sample Verification	0	0	148	74	0	213.56 MTBF Series	Production	08/74	08/74
204	AIC	Production Sample Verification	0	0	216	108	0	311.68 MTBF Series	Production	09/74	09/74
204	AIC	Production Sample Verification	0	0	144	72	0	207.79 MTBF Series	Production	10/74	10/74
204	AIC	Production Sample Verification	0	0	144	72	0	207.79 MTBF Series	Production	11/74	11/74
204	AIC	Production Sample Verification	0	0	216	108	0	311.68 MTBF Series	Production	11/74	11/74

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP ID	APP ENV	DATA SOURCE	FAILURES		TEST HOURS		SAMPLE SIZE		NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP	SIZE				START	END
204	Production	Sample Verification	AIC	0	0	216	108	0	311.68 MTBF Series	Production	12/74	12/74
204	Production	Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	01/75	01/75
205	Production	Sample Verification	AIC	0	0	216	108	0	311.68 MTBF Series	Production	03/75	03/75
205	Production	Sample Verification	AIC	0	0	216	108	0	311.68 MTBF Series	Production	04/75	04/75
205	Production	Sample Verification	AIC	0	0	216	108	0	311.68 MTBF Series	Production	05/75	05/75
205	Production	Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	06/75	06/75
205	Production	Sample Verification	AIC	0	0	74	37	0	106.78 MTBF Series	Production	07/75	07/75
205	Production	Sample Verification	AIC	0	0	268	134	0	386.72 MTBF Series	Production	09/75	09/75
205	Production	Sample Verification	AIC	0	0	86	43	0	124.09 MTBF Series	Production	10/75	10/75
205	Production	Sample Verification	AIC	0	0	79	40	0	113.99 MTBF Series	Production	11/75	11/75
205	Production	Sample Verification	AIC	0	0	83	41	0	119.76 MTBF Series	Production	12/75	12/75
205	Production	Sample Verification	AIC	0	0	78	39	0	112.55 MTBF Series	Production	01/76	01/76
205	Production	Sample Verification	AIC	0	0	81	40	0	116.88 MTBF Series	Production	03/76	03/76
205	Production	Sample Verification	AIC	0	0	91	45	0	131.31 MTBF Series	Production	04/76	04/76
206	Production	Sample Verification	AIC	0	0	144	72	0	207.79 MTBF Series	Production	05/74	05/74
206	Production	Sample Verification	AIC	0	0	144	72	0	207.79 MTBF Series	Production	06/74	06/74
206	Production	Sample Verification	AIC	0	0	296	148	0	427.12 MTBF Series	Production	07/74	07/74
206	Production	Sample Verification	AIC	1	0	432	216	0	432.00 MTBF Series	Production	08/74	08/74
206	Production	Sample Verification	AIC	0	0	576	288	0	831.16 MTBF Series	Production	09/74	09/74
206	Production	Sample Verification	AIC	0	0	288	144	0	415.58 MTBF Series	Production	10/74	10/74
206	Production	Sample Verification	AIC	1	0	432	216	0	432.00 MTBF Series	Production	11/74	11/74
206	Production	Sample Verification	AIC	0	0	360	180	0	519.48 MTBF Series	Production	12/74	12/74
206	Production	Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	01/75	01/75
207	Production	Sample Verification	AIC	0	0	432	216	0	623.37 MTBF Series	Production	03/75	03/75
207	Production	Sample Verification	AIC	0	0	144	72	0	207.79 MTBF Series	Production	04/75	04/75
207	Production	Sample Verification	AIC	1	0	288	144	0	288.00 MTBF Series	Production	05/75	05/75
207	Production	Sample Verification	AIC	0	0	144	72	0	207.79 MTBF Series	Production	06/75	06/75
207	Production	Sample Verification	AIC	0	0	148	74	0	213.56 MTBF Series	Production	07/75	07/75
207	Production	Sample Verification	AIC	0	0	456	228	0	658.00 MTBF Series	Production	09/75	09/75
207	Production	Sample Verification	AIC	1	0	163	81	0	163.00 MTBF Series	Production	10/75	10/75
207	Production	Sample Verification	AIC	0	0	158	79	0	227.99 MTBF Series	Production	11/75	11/75
207	Production	Sample Verification	AIC	0	0	166	83	0	239.53 MTBF Series	Production	12/75	12/75
207	Production	Sample Verification	AIC	1	0	156	78	0	156.00 MTBF Series	Production	01/76	01/76
207	Production	Sample Verification	AIC	0	0	162	81	0	233.76 MTBF Series	Production	03/76	03/76
207	Production	Sample Verification	AIC	0	0	182	91	0	262.62 MTBF Series	Production	04/76	04/76

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
208	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	05/74	05/74
208	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	06/74	06/74
208	Production Sample Verification	AIC	4	0	155	78	0	38.75 MTBF Series	Production	07/74	07/74
208	Production Sample Verification	AIC	0	0	144	72	0	207.79 MTBF Series	Production	08/74	08/74
208	Production Sample Verification	AIC	2	0	158	79	0	79.00 MTBF Series	Production	09/74	09/74
208	Production Sample Verification	AIC	2	0	161	80	0	80.50 MTBF Series	Production	10/74	10/74
208	Production Sample Verification	AIC	0	0	146	73	0	210.67 MTBF Series	Production	11/74	11/74
208	Production Sample Verification	AIC	0	0	312	156	0	450.21 MTBF Series	Production	12/74	12/74
208	Production Sample Verification	AIC	0	0	76	38	0	109.66 MTBF Series	Production	01/75	01/75
209	Production Sample Verification	AIC	0	0	223	111	0	321.78 MTBF Series	Production	03/75	03/75
209	Production Sample Verification	AIC	0	0	75	38	0	108.22 MTBF Series	Production	04/75	04/75
209	Production Sample Verification	AIC	0	0	165	82	0	238.09 MTBF Series	Production	05/75	05/75
209	Production Sample Verification	AIC	0	0	72	36	0	103.89 MTBF Series	Production	06/75	06/75
209	Production Sample Verification	AIC	0	0	74	37	0	106.78 MTBF Series	Production	07/75	07/75
209	Production Sample Verification	AIC	2	0	268	134	0	134.00 MTBF Series	Production	09/75	09/75
209	Production Sample Verification	AIC	1	0	84	42	0	84.00 MTBF Series	Production	10/75	10/75
209	Production Sample Verification	AIC	0	0	79	40	0	113.99 MTBF Series	Production	11/75	11/75
209	Production Sample Verification	AIC	3	0	83	41	0	27.66 MTBF Series	Production	12/75	12/75
209	Production Sample Verification	AIC	0	0	78	39	0	112.55 MTBF Series	Production	01/76	01/76
209	Production Sample Verification	AIC	0	0	81	40	0	116.88 MTBF Series	Production	03/76	03/76
209	Production Sample Verification	AIC	1	0	91	46	0	91.00 MTBF Series	Production	04/76	04/76
322	Field Data and Operating Time	AUF	152	177	303,981	0	0	1,999.87 MTBF Functional	Operational	05/83	04/85
322	Field Data and Operating Time	AUF	329	0	303,981	0	0	923.95 MTBMA	Operational	05/83	04/85
322	Field Data and Operating Time	AUF	19	47	53,220	0	0	2,801.05 MTBF Functional	Operational	05/83	04/85
322	Field Data and Operating Time	AUF	66	0	53,220	0	0	806.36 MTBMA	Operational	05/83	04/85
365	Analysis & Prediction Report	GF	0	0	0	0	0	30,038.00 MTBF Series	Development	05/83	06/85
365	Field Data and Operating Time	GF	67	48	349,440	0	0	5,215.52 MTBF Functional	Operational	05/83	06/85
365	Field Data and Operating Time	GF	115	0	349,440	0	0	3,038.60 MTBMA	Operational	05/83	06/85
365	Field Data and Operating Time	GF	123	0	349,440	0	0	2,840.97 MTBM	Operational	05/83	06/85
366	Analysis & Prediction Report	GF	0	0	0	0	0	39,183.00 MTBF Series	Development	05/83	06/85
366	Field Data and Operating Time	GF	22	10	698,880	0	0	31,767.27 MTBF Functional	Operational	05/83	06/85
366	Field Data and Operating Time	GF	32	0	698,880	0	0	21,840.00 MTBMA	Operational	05/83	06/85
366	Field Data and Operating Time	GF	35	0	698,880	0	0	19,968.00 MTBM	Operational	05/83	06/85
372	Analysis & Prediction Report	GF	0	0	0	0	0	29,658.00 MTBF Series	Development	05/83	06/85
372	Field Data and Operating Time	GF	36	28	349,440	0	0	9,706.66 MTBF Functional	Operational	05/83	06/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Indicator/Control

EQUIP	ID	DATA SOURCE	APP	ENV	FAILURES	RELEVANT	NON-REL	OPERATE	TEST HOURS	NON-OP	SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE
														START END
	372	Field Data and Operating Time	GF	GF	64	0	0	349,440	0	0	0	5,460.00 MTBMA	Operational	05/83 06/85
	372	Field Data and Operating Time	GF	GF	74	0	0	349,440	0	0	0	4,722.16 MTBM	Operational	05/83 06/85
	373	Analysis & Prediction Report	GF	GF	0	0	0	0	0	0	0	63,682.00 MTBF Series	Development	
	373	Field Data and Operating Time	GF	GF	15	15	0	698,880	0	0	0	46,592.00 MTBF Functional	Operational	05/83 06/85
	373	Field Data and Operating Time	GF	GF	30	0	0	698,880	0	0	0	23,296.00 MTBMA	Operational	05/83 06/85
	373	Field Data and Operating Time	GF	GF	40	0	0	698,880	0	0	0	17,472.00 MTBM	Operational	05/83 06/85
	374	Analysis & Prediction Report	GF	GF	0	0	0	0	0	0	0	1,334.00 MTBF Series	Development	
	374	Field Data and Operating Time	GF	GF	607	437	0	698,880	0	0	0	1,151.36 MTBF Functional	Operational	05/83 06/85
	374	Field Data and Operating Time	GF	GF	1,044	0	0	698,880	0	0	0	669.42 MTBMA	Operational	05/83 06/85
	374	Field Data and Operating Time	GF	GF	1,243	0	0	698,880	0	0	0	562.25 MTBM	Operational	05/83 06/85

Radar, Interconnect/Distribute

EQUIP	ID	DATA SOURCE	APP	ENV	FAILURES	RELEVANT	NON-REL	OPERATE	TEST HOURS	NON-OP	SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE
														START END
	85	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	86	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	87	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	88	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	89	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	90	Simulated Operation	AUF	AUF	0	0	0	1,606	0	0	0	2,317.46 MTBF Series	Development	07/72 11/74
	364	Analysis & Prediction Report	GF	GF	0	0	0	0	0	0	0	===== MTBF Series	Development	
	364	Field Data and Operating Time	GF	GF	63	47	0	349,440	0	0	0	11,546.56 MTBF Functional	Operational	05/83 06/85
	364	Field Data and Operating Time	GF	GF	110	0	0	349,440	0	0	0	3,176.72 MTBMA	Operational	05/83 06/85
	364	Field Data and Operating Time	GF	GF	127	0	0	349,440	0	0	0	2,751.49 MTBM	Operational	05/83 06/85
	367	Analysis & Prediction Report	GF	GF	0	0	0	0	0	0	0	91,844.00 MTBF Series	Development	
	367	Field Data and Operating Time	GF	GF	10	2	0	349,440	0	0	0	34,944.00 MTBF Functional	Operational	05/83 09/85
	367	Field Data and Operating Time	GF	GF	12	0	0	349,440	0	0	0	29,120.00 MTBMA	Operational	05/83 09/85
	367	Field Data and Operating Time	GF	GF	33	0	0	349,440	0	0	0	10,589.09 MTBM	Operational	05/83 09/85
	369	Analysis & Prediction Report	GF	GF	0	0	0	0	0	0	0	===== MTBF Series	Development	
	369	Field Data and Operating Time	GF	GF	48	25	0	349,440	0	0	0	11,286.00 MTBF Functional	Operational	05/83 06/85
	369	Field Data and Operating Time	GF	GF	73	0	0	349,440	0	0	0	4,786.84 MTBMA	Operational	05/83 06/85
	369	Field Data and Operating Time	GF	GF	82	0	0	349,440	0	0	0	4,261.46 MTBM	Operational	05/83 06/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

### Radar, Memory

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
7	Analysis & Prediction Report	GF	0	0	0	0	0	2,877.00 MTBF Series	Development	01/74	
7	Analysis & Prediction Report	GF	0	0	17,520	0	0	25,281.38 MTBM	Operational	08/83	07/85
7	Field Data and Operating Time	GF	0	0	17,520	0	0	25,281.38 MTBF Functional	Operational	08/83	07/85
7	Field Data and Operating Time	GF	0	0	17,520	0	0	25,281.38 MTBMA	Operational	08/83	07/85

### Radar, Miscellaneous

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
351	Contract Spec/Requirement	AUF	0	0	0	0	0	8,000.00 MTBF Series	Development		
351	Analysis & Prediction Report	AU	0	0	0	0	0	438.00 MTBF Series	Development		
377	Analysis & Prediction Report	GF	0	0	0	0	0	90,992.00 MTBF Series	Development		
377	Field Data and Operating Time	GF	1,037	616	349,440	0	0	336.97 MTBF Functional	Operational	05/83	06/85
377	Field Data and Operating Time	GF	1,653	0	349,440	0	0	211.39 MTBMA	Operational	05/83	06/85
377	Field Data and Operating Time	GF	1,880	0	349,440	0	0	185.87 MTBM	Operational	05/83	06/85

### Radar, Modulator/Demodulator

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
19	Analysis & Prediction Report	GF	0	0	0	0	0	2,266.00 MTBF Series	Development	01/74	
19	Field Data and Operating Time	GF	2	0	105,120	0	0	52,560.00 MTBF Functional	Operational	08/83	07/85
19	Field Data and Operating Time	GF	2	0	105,120	0	0	52,560.00 MTBMA	Operational	08/83	07/85
19	Field Data and Operating Time	GF	2	0	105,120	0	0	52,560.00 MTBM	Operational	08/83	07/85
20	Analysis & Prediction Report	GF	0	0	0	0	0	6,202.00 MTBF Series	Development	01/74	
20	Field Data and Operating Time	GF	2	0	210,240	0	0	105,120.00 MTBF Functional	Operational	08/83	07/85
20	Field Data and Operating Time	GF	2	0	210,240	0	0	105,120.00 MTBMA	Operational	08/83	07/85
20	Field Data and Operating Time	GF	2	0	210,240	0	0	105,120.00 MTBM	Operational	08/83	07/85
21	Analysis & Prediction Report	GF	0	0	0	0	0	2,266.00 MTBF Series	Development	01/74	
21	Field Data and Operating Time	GF	7	0	105,120	0	0	15,017.14 MTBF Functional	Operational	08/83	07/85
21	Field Data and Operating Time	GF	7	0	105,120	0	0	15,017.14 MTBMA	Operational	08/83	07/85
21	Field Data and Operating Time	GF	12	0	105,120	0	0	8,760.00 MTBM	Operational	08/83	07/85

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Mux/Demux

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
363	Analysis & Prediction Report	GF	0	0	0	0	0	3,490.00 MTBF Series	Development	05/83	06/85
363	Field Data and Operating Time	GF	613	481	698,880	0	0	1,140.09 MTBF Functional	Operational	05/83	06/85
363	Field Data and Operating Time	GF	1,094	0	698,880	0	0	638.82 MTBMA	Operational	05/83	06/85
363	Field Data and Operating Time	GF	1,182	0	698,880	0	0	591.26 MTBM	Operational	05/83	06/85
371	Analysis & Prediction Report	GF	0	0	0	0	0	3,151.00 MTBF Series	Development	05/83	06/85
371	Field Data and Operating Time	GF	204	132	349,440	0	0	1,712.94 MTBF Functional	Operational	05/83	06/85
371	Field Data and Operating Time	GF	336	0	349,440	0	0	1,040.00 MTBMA	Operational	05/83	06/85
371	Field Data and Operating Time	GF	370	0	349,440	0	0	944.43 MTBM	Operational	05/83	06/85

Radar, Power Supply

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
23	Analysis & Prediction Report	GF	0	0	0	0	0	29,870.00 MTBF Series	Development	01/74	07/85
23	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBF Functional	Operational	08/83	07/85
23	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBMA	Operational	08/83	07/85
23	Field Data and Operating Time	GF	1	0	210,240	0	0	210,240.00 MTBM	Operational	08/83	07/85
97	Allocation/Apportion	AUF	0	0	0	0	0	1,810.00 MTBF Series	Development	10/76	01/77
97	Analysis & Prediction Report	AU	0	0	0	0	0	1,923.00 MTBF Series	Development	07/72	11/74
97	Production Sample Verification	AUF	1	0	257	0	0	257.00 MTBF Series	Production	04/74	06/75
97	Simulated Operation	AUF	6	0	1,943	0	0	323.83 MTBF Series	Development	05/83	04/85
97	Simulated Operation	AUF	3	0	1,716	0	0	572.00 MTBF Series	Development	05/83	04/85
97	Field Data and Operating Time	AUF	947	1,517	178,344	0	0	188.32 MTBF Functional	Operational	05/83	04/85
97	Field Data and Operating Time	AUF	2,464	0	178,344	0	0	72.37 MTBMA	Operational	05/83	04/85
97	Field Data and Operating Time	AUF	509	819	173,620	0	0	341.10 MTBF Functional	Operational	05/83	04/85
97	Field Data and Operating Time	AUF	1,328	0	173,620	0	0	130.73 MTBMA	Operational	05/83	04/85
107	Analysis & Prediction Report	AU	0	0	0	0	0	1,923.00 MTBF Series	Development	11/73	09/74
107	Demonstration Test Report	AUF	0	0	150	115	0	216.45 MTBF Series	Development	11/73	09/74
182	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
182	Simulated Operation	AUF	0	0	938	0	0	1,353.53 MTBF Series	Development	07/76	08/76
251	Analysis & Prediction Report	GF	0	0	0	0	0	22,211.00 MTBF Series	Development	08/83	07/85
251	Field Data and Operating Time	GF	47	0	3,924,480	0	224	83,499.57 MTBMA	Operational	08/83	07/85
251	Field Data and Operating Time	GF	32	15	3,924,480	0	224	122,640.00 MTBF Functional	Operational	08/83	07/85
368	Analysis & Prediction Report	GF	0	0	0	0	0	36,610.00 MTBF Series	Development	05/83	06/85
368	Field Data and Operating Time	GF	10	13	349,440	0	0	34,944.00 MTBF Functional	Operational	05/83	06/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Power Supply

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
368	Field Data and Operating Time	GF	23	0	349,440	0	0	15,193.04 MTBMA	Operational	05/83	06/85
368	Field Data and Operating Time	GF	36	0	349,440	0	0	9,706.66 MTBMA	Operational	05/83	06/85
370	Analysis & Prediction Report	GF	0	0	0	0	0	222,618.00 MTBF Series	Development		
370	Field Data and Operating Time	GF	6	4	698,880	0	0	116,480.00 MTBF Functional	Operational	05/83	06/85
370	Field Data and Operating Time	GF	10	0	698,880	0	0	69,888.00 MTBMA	Operational	05/83	06/85
370	Field Data and Operating Time	GF	14	0	698,880	0	0	49,920.00 MTBMA	Operational	05/83	06/85

Radar, Receiver

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
98	Allocation/Apportion	AUF	0	0	0	0	0	1,809.00 MTBF Series	Development		
98	Analysis & Prediction Report	AU	0	0	0	0	0	1,938.00 MTBF Series	Development		
98	Production Sample Verification	AUF	0	1	257	0	0	370.85 MTBF Series	Production	10/76	01/77
98	Simulated Operation	AUF	4	0	1,885	0	0	471.25 MTBF Series	Development	07/72	11/74
98	Simulated Operation	AUF	1	0	1,676	0	0	1,676.00 MTBF Series	Development	04/74	06/75
98	Field Data and Operating Time	AUF	795	1,720	178,344	0	0	224.33 MTBF Functional	Operational	05/83	04/85
98	Field Data and Operating Time	AUF	2,515	0	178,344	0	0	70.91 MTBMA	Operational	05/83	04/85
98	Field Data and Operating Time	AUF	673	913	173,620	0	0	257.97 MTBF Functional	Operational	05/83	04/85
98	Field Data and Operating Time	AUF	1,586	0	173,620	0	0	109.47 MTBMA	Operational	05/83	04/85
108	Analysis & Prediction Report	AU	0	0	0	0	0	1,938.00 MTBF Series	Development	11/73	09/74
108	Demonstration Test Report	AUF	0	0	150	115	0	216.45 MTBF Series	Development	11/73	09/74
176	Field Data and Operating Time	AUF	19,585	0	49,969	0	0	2.55 MTBMA	Operational	07/83	06/85
176	Field Data and Operating Time	AUF	7,866	11,719	49,969	0	0	6.35 MTBF Functional	Operational	07/83	06/85
183	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
183	Simulated Operation	AUF	0	0	1,004	0	0	1,448.77 MTBF Series	Development	07/76	08/76
183	Field Data and Operating Time	AUF	347	351	49,969	0	0	144.00 MTBF Functional	Operational	07/83	06/85
183	Field Data and Operating Time	AUF	698	0	49,969	0	0	71.58 MTBMA	Operational	07/83	06/85
184	Production Sample Verification	AUF	0	0	720	0	24	1,038.96 MTBF Series	Production	01/78	04/78
184	Simulated Operation	AUF	2	0	1,987	0	0	993.50 MTBF Series	Development	07/76	08/76
184	Field Data and Operating Time	AUF	262	242	49,969	0	0	190.72 MTBF Functional	Operational	07/83	06/85
184	Field Data and Operating Time	AUF	504	0	49,969	0	0	99.14 MTBMA	Operational	07/83	06/85
185	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
185	Simulated Operation	AUF	7	0	764	0	0	109.14 MTBF Series	Development	07/76	08/76
185	Field Data and Operating Time	AUF	457	223	44,969	0	0	98.40 MTBF Functional	Operational	07/83	06/85



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ELECTRONIC EQUIPMENT RELIABILITY DATA(U) RELIABILITY  
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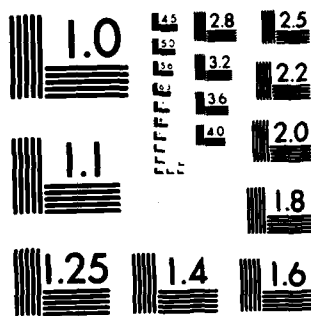
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XEROGRAPHY RESOLUTION TEST CHART  
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# EERD-2 EQUIPMENT RELIABILITY

RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Receiver

Radar, Receiver												
EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE		PROGRAM PHASE	TEST DATE	
				RELEVANT	NON-REL	OPERATE	NON-OP	SIZE	NUMERIC PARAMETER		START	END
185	Field Data and Operating Time	AUF	680	0	49,969	0	0	73.48 MTBMA	Operational	07/83	06/85	
196	Demonstration Test Report	AUF	0	4	1,625	1,023	32	2,344.87 MTBF Series	Production	10/77	08/78	
196	Demonstration Test Report	AUF	1	1	750	420	15	750.00 MTBF Series	Production	08/78	09/78	
196	Simulated Operation	AUF	0	0	950	0	0	1,370.85 MTBF Series	Development	07/76	08/76	
196	Field Data and Operating Time	AUF	25	29	49,969	0	0	1,998.76 MTBF Functional	Operational	07/83	06/85	
196	Field Data and Operating Time	AUF	54	0	49,969	0	0	925.35 MTBMA	Operational	07/83	06/85	
253	Analysis & Prediction Report	GF	0	0	0	0	0	1,412.00 MTBF Series	Development			
253	Field Data and Operating Time	GF	23	0	35,040	0	2	1,523.47 MTBMA	Operational	08/83	07/85	
253	Field Data and Operating Time	GF	16	7	35,040	0	2	2,190.00 MTBF Functional	Operational	08/83	07/85	
318	Field Data and Operating Time	AUF	1,499	1,436	303,981	0	0	202.78 MTBF Functional	Operational	05/83	04/85	
318	Field Data and Operating Time	AUF	2,935	0	303,981	0	0	103.57 MTBMA	Operational	05/83	04/85	
318	Field Data and Operating Time	AUF	252	345	53,220	0	0	211.19 MTBF Functional	Operational	05/83	04/85	
318	Field Data and Operating Time	AUF	597	0	53,220	0	0	89.14 MTBMA	Operational	05/83	04/85	
348	Contract Spec/Requirement	AUF	0	0	0	0	0	800.00 MTBF Series	Development			
348	Analysis & Prediction Report	AU	0	0	0	0	0	1,110.00 MTBF Series	Development			
348	Field Data and Operating Time	AUF	15	0	2,887	0	0	192.46 MTBF Functional	Operational	01/82	06/82	
362	Analysis & Prediction Report	GF	0	0	0	0	0	3,211.00 MTBF Series	Development			
362	Field Data and Operating Time	GF	1,010	0	349,440	0	0	345.98 MTBMA	Operational	05/83	06/85	
362	Field Data and Operating Time	GF	663	347	349,440	0	0	527.05 MTBF Functional	Operational	05/83	06/85	
362	Field Data and Operating Time	GF	1,231	0	349,440	0	0	283.86 MTBM	Operational	05/83	06/85	

Radar, Signal/Data

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# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
15	Analysis & Prediction Report	GF	0	0	0	0	0	2,255.00 MTBF Series	Development	01/74	
15	Field Data and Operating Time	GF	3	3	3,254	0	0	1,084.66 MTBF Functional	Operational	02/76	08/76
15	Field Data and Operating Time	GF	3	3	3,254	0	0	1,084.66 MTBF Functional	Operational	02/76	08/76
15	Field Data and Operating Time	GF	0	0	17,520	0	0	25,281.38 MTBF Functional	Operational	08/83	07/85
15	Field Data and Operating Time	GF	0	0	17,520	0	0	25,281.38 MTBMA	Operational	08/83	07/85
15	Field Data and Operating Time	GF	0	0	17,520	0	0	25,281.38 MTBMA	Operational	08/83	07/85
93	Allocation/Apportion	AUF	0	0	0	0	0	245.00 MTBF Series	Development		
93	Analysis & Prediction Report	AU	0	0	0	0	0	263.00 MTBF Series	Development		
93	Production Sample Verification	AUF	0	1	257	0	0	370.85 MTBF Series	Production	10/76	01/77
93	Simulated Operation	AUF	11	0	1,952	0	0	177.45 MTBF Series	Development	07/72	11/74
93	Simulated Operation	AUF	5	0	1,863	0	0	372.60 MTBF Series	Development	04/74	06/75
93	Field Data and Operating Time	AUF	556	989	178,344	0	0	320.76 MTBF Functional	Operational	05/83	04/85
93	Field Data and Operating Time	AUF	1,545	0	178,344	0	0	115.43 MTBMA	Operational	05/83	04/85
93	Field Data and Operating Time	AUF	287	251	173,620	0	0	604.94 MTBF Functional	Operational	05/83	04/85
93	Field Data and Operating Time	AUF	638	0	173,620	0	0	272.13 MTBMA	Operational	05/83	04/85
94	Allocation/Apportion	AUF	0	0	0	0	0	365.00 MTBF Series	Development		
94	Analysis & Prediction Report	AU	0	0	0	0	0	391.00 MTBF Series	Development		
94	Simulated Operation	AUF	10	0	2,121	0	0	212.10 MTBF Series	Development	07/72	11/74
94	Simulated Operation	AUF	7	0	1,795	0	0	256.42 MTBF Series	Development	04/74	06/75
94	Field Data and Operating Time	AUF	1,153	2,084	178,344	0	0	154.67 MTBF Functional	Operational	05/83	04/85
94	Field Data and Operating Time	AUF	3,237	0	178,344	0	0	55.09 MTBMA	Operational	05/83	04/85
94	Field Data and Operating Time	AUF	698	1,005	173,620	0	0	248.73 MTBF Functional	Operational	05/83	04/85
94	Field Data and Operating Time	AUF	1,703	0	173,620	0	0	101.94 MTBMA	Operational	05/83	04/85
95	Allocation/Apportion	AUF	0	0	0	0	0	418.00 MTBF Series	Development		
95	Analysis & Prediction Report	AU	0	0	0	0	0	451.00 MTBF Series	Development		
95	Production Sample Verification	AUF	0	2	257	0	0	370.85 MTBF Series	Production	10/76	01/77
95	Simulated Operation	AUF	10	0	1,888	0	0	188.80 MTBF Series	Development	07/72	11/74
95	Simulated Operation	AUF	3	0	1,744	0	0	581.33 MTBF Series	Development	04/74	06/75
95	Field Data and Operating Time	AUF	1,332	1,599	178,344	0	0	133.89 MTBF Functional	Operational	05/83	04/85
95	Field Data and Operating Time	AUF	2,931	0	178,344	0	0	60.84 MTBMA	Operational	05/83	04/85
95	Field Data and Operating Time	AUF	1,166	1,297	173,620	0	0	148.90 MTBF Functional	Operational	05/83	04/85
95	Field Data and Operating Time	AUF	2,463	0	173,620	0	0	70.49 MTBMA	Operational	05/83	04/85
103	Analysis & Prediction Report	AU	0	0	0	0	0	264.00 MTBF Series	Development	11/73	09/74
103	Demonstration Test Report	AUF	2	27	150	115	0	75.00 MTBF Series	Development	11/73	09/74
104	Analysis & Prediction Report	AU	0	0	0	0	0	390.00 MTBF Series	Development	11/73	09/74

# EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
104	Demonstration Test Report	AUF	2	9	150	115	0	75.00 MTBF Series	Development	11/73	09/74
105	Analysis & Prediction Report	AU	0	0	0	0	0	451.00 MTBF Series	Development	11/73	09/74
105	Demonstration Test Report	AUF	0	0	150	115	0	216.45 MTBF Series	Development	11/73	09/74
177	Production Sample Verification	AUF	1	1	360	0	12	360.00 MTBF Series	Production	01/78	04/78
177	Simulated Operation	AUF	2	0	1,010	0	0	505.00 MTBF Series	Development	07/76	08/76
177	Field Data and Operating Time	AUF	646	362	49,969	0	0	77.35 MTBF Functional	Operational	07/83	06/85
177	Field Data and Operating Time	AUF	1,008	0	49,969	0	0	49.57 MTBMA	Operational	07/83	06/85
178	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
178	Simulated Operation	AUF	0	0	1,003	0	0	1,447.33 MTBF Series	Development	07/76	08/76
178	Field Data and Operating Time	AUF	394	166	49,969	0	0	126.82 MTBF Functional	Operational	07/83	06/85
178	Field Data and Operating Time	AUF	560	0	49,969	0	0	89.23 MTBMA	Operational	07/83	06/85
179	Production Sample Verification	AUF	0	0	360	0	12	519.48 MTBF Series	Production	01/78	04/78
179	Simulated Operation	AUF	0	0	974	0	0	1,405.48 MTBF Series	Development	07/76	08/76
179	Field Data and Operating Time	AUF	250	168	49,969	0	0	199.87 MTBF Functional	Operational	07/83	06/85
179	Field Data and Operating Time	AUF	418	0	49,969	0	0	119.54 MTBMA	Operational	07/83	06/85
180	Production Sample Verification	AUF	0	1	1,080	0	36	1,558.44 MTBF Series	Production	01/78	04/78
180	Simulated Operation	AUF	6	0	2,595	0	0	432.50 MTBF Series	Development	07/76	08/76
180	Field Data and Operating Time	AUF	686	341	49,969	0	0	72.84 MTBF Functional	Operational	07/83	06/85
180	Field Data and Operating Time	AUF	1,027	0	44,969	0	0	43.78 MTBMA	Operational	07/83	06/85
320	Field Data and Operating Time	AUF	416	638	303,981	0	0	730.72 MTBF Functional	Operational	05/83	04/85
320	Field Data and Operating Time	AUF	1,054	0	303,981	0	0	288.40 MTBMA	Operational	05/83	04/85
320	Field Data and Operating Time	AUF	71	136	53,220	0	0	749.57 MTBF Functional	Operational	05/83	04/85
320	Field Data and Operating Time	AUF	207	0	53,220	0	0	257.10 MTBMA	Operational	05/83	04/85
349	Contract Spec/Requirement	AUF	0	0	0	0	0	600.00 MTBF Series	Development		
349	Analysis & Prediction Report	AU	0	0	0	0	0	832.00 MTBF Series	Development		
349	Field Data and Operating Time	AUF	14	0	2,887	0	0	206.21 MTBF Functional	Operational	01/82	06/82

Radar, Test Circuitry

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
252	Analysis & Prediction Report	GF	0	0	0	0	0	4,100.00 MTBF Series	Development		
252	Field Data and Operating Time	GF	2	0	70,080	0	4	35,040.00 MTBMA	Operational	08/83	07/85
252	Field Data and Operating Time	GF	2	0	70,080	0	4	35,040.00 MTBF Functional	Operational	08/83	07/85

# RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Transceiver

EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
				RELEVANT	NON-REL	OPERATE	NON-OP				START	END
	210	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	05/74	05/74
	210	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	06/74	06/74
	210	Production Sample Verification	AUC	1	0	149	74	0	149.00 MTBF Series	Production	07/74	07/74
	210	Production Sample Verification	AUC	6	0	456	228	0	76.00 MTBF Series	Production	08/74	08/74
	210	Production Sample Verification	AUC	2	0	315	157	0	157.50 MTBF Series	Production	09/74	09/74
	210	Production Sample Verification	AUC	2	0	323	161	0	161.50 MTBF Series	Production	10/74	10/74
	210	Production Sample Verification	AUC	3	0	461	230	0	153.66 MTBF Series	Production	11/74	11/74
	210	Production Sample Verification	AUC	5	0	401	200	0	80.20 MTBF Series	Production	12/74	12/74
	210	Production Sample Verification	AUC	1	0	150	75	0	150.00 MTBF Series	Production	01/75	01/75
	211	Production Sample Verification	AUC	3	0	440	220	0	146.66 MTBF Series	Production	03/75	03/75
	211	Production Sample Verification	AUC	1	0	230	15	0	230.00 MTBF Series	Production	04/75	04/75
	211	Production Sample Verification	AUC	2	0	314	157	0	157.00 MTBF Series	Production	05/75	05/75
	211	Production Sample Verification	AUC	0	0	144	72	0	207.79 MTBF Series	Production	06/75	06/75
	211	Production Sample Verification	AUC	2	0	148	74	0	74.00 MTBF Series	Production	07/75	07/75
	211	Production Sample Verification	AUC	6	0	456	228	0	76.00 MTBF Series	Production	09/75	09/75
	211	Production Sample Verification	AUC	0	0	163	81	0	235.20 MTBF Series	Production	10/75	10/75
	211	Production Sample Verification	AUC	2	1	158	79	0	79.00 MTBF Series	Production	11/75	11/75
	211	Production Sample Verification	AUC	4	0	166	83	0	41.50 MTBF Series	Production	12/75	12/75
	211	Production Sample Verification	AUC	4	0	156	78	0	39.00 MTBF Series	Production	01/76	01/76
	211	Production Sample Verification	AUC	5	1	161	80	0	32.20 MTBF Series	Production	03/76	03/76
	211	Production Sample Verification	AUC	8	0	181	90	0	22.62 MTBF Series	Production	04/76	04/76

Radar, Transmitter

EQUIP	ID	DATA SOURCE	APP	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
				RELEVANT	NON-REL	OPERATE	NON-OP				START	END
	16	Analysis & Prediction Report	GF	0	0	0	0	0	74.80 MTBF Series	Development	01/74	01/74
	16	Field Data and Operating Time	GF	1	55	3,352	0	0	3,352.00 MTBF Functional	Operational	02/76	08/76
	16	Field Data and Operating Time	GF	52	4	3,352	0	0	64.46 MTBF Functional	Operational	02/76	08/76
	16	Field Data and Operating Time	GF	60	2	17,520	0	0	292.00 MTBF Functional	Operational	08/83	07/85
	16	Field Data and Operating Time	GF	62	0	17,520	0	0	282.58 MTBMA	Operational	08/83	07/85
	16	Field Data and Operating Time	GF	68	0	17,520	0	0	257.64 MTBM	Operational	08/83	07/85
	99	Allocation/Apportion	AUF	0	0	0	0	0	556.00 MTBF Series	Development		
	99	Analysis & Prediction Report	AU	0	0	0	0	0	661.00 MTBF Series	Development		
	99	Production Sample Verification	AUF	7	7	257	0	0	257.00 MTBF Series	Production	10/76	01/77

## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Radar, Transmitter

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NOM-REL	OPERATE	NOM-OP				START	END
99	Simulated Operation	AUF	16	0	1,836	0	0	114.75 MTBF Series	Development	07/72	11/74
99	Simulated Operation	AUF	12	0	1,732	0	0	144.33 MTBF Series	Development	04/74	06/75
99	Field Data and Operating Time	AUF	1,317	1,307	178,344	0	0	135.41 MTBF Functional	Operational	05/83	04/85
99	Field Data and Operating Time	AUF	2,624	0	178,344	0	0	67.96 MTBMA	Operational	05/83	04/85
99	Field Data and Operating Time	AUF	999	841	173,620	0	0	173.79 MTBF Functional	Operational	05/83	04/85
99	Field Data and Operating Time	AUF	1,840	0	173,620	0	0	94.35 MTBMA	Operational	05/83	04/85
109	Analysis & Prediction Report	AU	0	0	0	0	0	661.00 MTBF Series	Development	11/73	09/74
109	Demonstration Test Report	AUF	0	6	150	115	0	216.45 MTBF Series	Development	11/73	09/74
109	Simulated Operation	AUF	5	0	0	0	0	0.00 MTBF Series	Development	07/72	11/74
255	Allocation/Apportion	GF	0	0	0	0	0	535.00 MTBF Series	Development		
255	Allocation/Apportion	GF	0	0	0	0	0	110,742.00 MTBF Functional	Development		
255	Analysis & Prediction Report	GF	0	0	0	0	0	290.00 MTBF Series	Development		
255	Analysis & Prediction Report	GF	0	0	0	0	0	174,550.00 MTBF Functional	Development		
255	Field Data and Operating Time	GF	134	0	35,040	0	2	261.49 MTBMA	Operational	08/83	07/85
255	Field Data and Operating Time	GF	81	53	35,040	0	2	432.59 MTBF Functional	Operational	08/83	07/85
319	Field Data and Operating Time	AUF	601	425	303,981	0	0	505.79 MTBF Functional	Operational	05/83	04/85
319	Field Data and Operating Time	AUF	1,026	0	303,981	0	0	296.27 MTBMA	Operational	05/83	04/85
319	Field Data and Operating Time	AUF	118	84	53,220	0	0	451.01 MTBF Functional	Operational	05/83	04/85
319	Field Data and Operating Time	AUF	202	0	53,220	0	0	263.46 MTBMA	Operational	05/83	04/85
375	Analysis & Prediction Report	GF	0	0	0	0	0	4,887.00 MTBF Series	Development		
375	Field Data and Operating Time	GF	309	248	698,880	0	0	2,261.74 MTBF Functional	Operational	05/83	06/85
375	Field Data and Operating Time	GF	557	0	698,880	0	0	1,254.72 MTBMA	Operational	05/83	06/85
375	Field Data and Operating Time	GF	725	0	698,880	0	0	963.97 MTBM	Operational	05/83	06/85

Sonar,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NOM-REL	OPERATE	NOM-OP				START	END
334	Contract Spec/Requirement	GF	0	0	0	0	0	600.00 MTBF Functional	Development		
334	Contract Spec/Requirement	GF	0	0	0	0	0	200.00 MTBF Series	Development		
334	Analysis & Prediction Report	GF	0	0	0	0	0	125.00 MTBF Series	Development		
334	Analysis & Prediction Report	GF	0	0	0	0	0	816.00 MTBF Functional	Development		
334	Analysis & Prediction Report	NS	0	0	0	0	0	375.00 MTBF Functional	Development		
334	Analysis & Prediction Report	NS	0	0	0	0	0	125.00 MTBF Series	Development		
334	Demonstration Test Report	NS	6	4	3,816	0	2	636.00 MTBF Functional	Development	10/77	02/78

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Sonar,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
334	Demonstration Test Report	NS	33	159	3,816	0	2	115.63 MTBF Series	Development	10/77	02/78
334	Field Data and Operating Time	NS	2	25	3,231	0	0	1,615.50 MTBF Functional	Operational	03/78	10/78
334	Field Data and Operating Time	NS	27	0	3,231	0	0	119.66 MTBMA	Operational	03/78	10/78
334	Field Data and Operating Time	NS	15	0	2,512	0	0	167.46 MTBMA	Operational	03/79	09/79
334	Field Data and Operating Time	NS	4	11	2,512	0	0	628.00 MTBF Functional	Operational	03/79	09/79
335	Analysis & Prediction Report	GF	0	0	0	0	0	479.00 MTBF Series	Production		11/79
335	Analysis & Prediction Report	GF	0	0	0	0	0	993.00 MTBF Functional	Production		11/79
335	Analysis & Prediction Report	NS	0	0	0	0	0	200.00 MTBF Series	Production		11/79
335	Analysis & Prediction Report	NS	0	0	0	0	0	536.00 MTBF Functional	Production		11/79

Test Equipment,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
140	Contract Spec/Requirement	GF	0	0	0	0	0	79.00 MTBF Series	Development	06/75	07/75
140	Demonstration Test Report	GF	1	1	82	55	0	82.00 MTBF Series	Development	08/83	07/85
140	Field Data and Operating Time	GF	645	790	14,976	0	16	23.21 MTBF Functional	Operational	08/83	07/85
140	Field Data and Operating Time	GF	1,435	0	14,976	0	16	10.43 MTBMA	Operational		
141	Contract Spec/Requirement	GF	0	0	0	0	0	315.00 MTBF Series	Development		
141	Demonstration Test Report	GF	0	0	220	146	0	317.46 MTBF Series	Development	04/75	05/75
141	Field Data and Operating Time	GF	507	454	14,976	0	16	29.53 MTBF Functional	Operational	08/83	07/85
141	Field Data and Operating Time	GF	961	0	14,976	0	16	15.58 MTBMA	Operational	08/83	07/85
142	Contract Spec/Requirement	GF	0	0	0	0	0	136.00 MTBF Series	Development		
142	Demonstration Test Report	GF	0	1	102	68	0	147.18 MTBF Series	Development	08/74	09/74
142	Field Data and Operating Time	GF	261	230	14,976	0	16	57.37 MTBF Functional	Operational	08/83	07/85
142	Field Data and Operating Time	GF	491	0	14,976	0	16	30.50 MTBMA	Operational	08/83	07/85
143	Simulated Operation	AUF	0	0	3,778	0	0	5,451.65 MTBF Series	Development	07/72	11/74
143	Field Data and Operating Time	AUF	0	0	18,044	0	161	26,037.51 MTBM	Operational	01/77	06/77
143	Field Data and Operating Time	AUF	0	0	24,470	0	203	35,310.24 MTBM	Operational	07/77	12/77
143	Field Data and Operating Time	AUF	0	0	30,705	0	269	44,307.35 MTBM	Operational	01/78	06/78
143	Field Data and Operating Time	AUF	0	0	37,467	0	296	54,064.93 MTBM	Operational	07/78	12/78
143	Field Data and Operating Time	AUF	72	159	178,344	0	0	2 477.00 MTBF Functional	Operational	05/83	04/85
143	Field Data and Operating Time	AUF	231	0	178,344	0	0	772.05 MTBMA	Operational	05/83	04/85
143	Field Data and Operating Time	AUF	104	194	173,620	0	0	1,669.42 MTBF Functional	Operational	05/83	04/85
143	Field Data and Operating Time	AUF	298	0	173,620	0	0	582.61 MTBMA	Operational	05/83	04/85



## EERD-2 EQUIPMENT RELIABILITY

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

## Test Equipment,

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
219	Contract Spec/Requirement	AUF	0	0	0	0	0	850.00 MTBF Series	Development		
219	Contract Spec/Requirement	AUF	0	0	0	0	0	570.00 MTBF Series	Production		
219	Analysis & Prediction Report	AU	0	0	0	0	0	1,494.00 MTBF Series	Development		
219	Demonstration Test Report	AUF	1	2	2,468	2,468	0	2,468.00 MTBF Series	Development	09/73	01/74
219	Production Sample Verification	AUF	1	0	1,666	1,666	0	1,666.00 MTBF Series	Production	11/75	02/76
219	Simulated Operation	AUF	1	1	610	0	0	610.00 MTBF Series	Development	07/72	11/74
219	Field Data and Operating Time	AUF	43	0	18,044	0	161	419.62 MTBM	Operational	01/77	06/77
219	Field Data and Operating Time	AUF	51	0	24,470	0	203	479.80 MTBM	Operational	07/77	12/77
219	Field Data and Operating Time	AUF	5	0	30,705	0	269	6,141.00 MTBM	Operational	01/78	06/78
219	Field Data and Operating Time	AUF	4	0	37,453	0	296	9,363.25 MTBM	Operational	07/78	12/78
219	Field Data and Operating Time	AUF	300	687	178,344	0	0	594.48 MTBF Functional	Operational	05/83	04/85
219	Field Data and Operating Time	AUF	987	0	178,344	0	0	180.69 MTBMA	Operational	05/83	04/85
219	Field Data and Operating Time	AUF	211	342	173,620	0	0	822.84 MTBF Functional	Operational	05/83	04/85
219	Field Data and Operating Time	AUF	553	0	173,620	0	0	313.96 MTBMA	Operational	05/83	04/85

## Test Equipment, Indicator/Control

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
144	Simulated Operation	AUF	0	0	3,778	0	0	5,451.65 MTBF Series	Development	07/72	11/74

## Test Equipment, Memory

EQUIP ID	DATA SOURCE	APP ENV	FAILURES		TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
			RELEVANT	NON-REL	OPERATE	NON-OP				START	END
221	Demonstration Test Report	AUF	0	0	1,811	3,125	0	2,613.27 MTBF Series	Development	09/73	01/74
221	Production Sample Verification	AUF	0	0	1,764	1,568	0	2,545.45 MTBF Series	Production	11/75	02/76
221	Simulated Operation	AUF	0	1	610	0	0	880.23 MTBF Series	Development	07/72	11/74
221	Field Data and Operating Time	AUF	115	295	178,344	0	0	1,550.81 MTBF Functional	Operational	05/83	04/85
221	Field Data and Operating Time	AUF	410	0	178,344	0	0	434.98 MTBMA	Operational	05/83	04/85
221	Field Data and Operating Time	AUF	83	144	173,620	0	0	2,091.80 MTBF Functional	Operational	05/83	04/85
221	Field Data and Operating Time	AUF	228	0	173,620	0	0	761.49 MTBMA	Operational	05/83	04/85

# RELIABILITY DATA

## RELIABILITY DATA BY CATEGORY, EQUIPMENT TYPE

Test Equipment, Signal/Data

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
220	Demonstration Test Report	AUF	1	12	2,468	2,468	0	2,468.00 MTBF Series	Development	09/73	01/74
220	Production Sample Verification	AUF	1	0	1,666	1,666	0	1,666.00 MTBF Series	Production	11/75	02/76
220	Simulated Operation	AUF	1	0	610	0	0	610.00 MTBF Series	Development	07/72	11/74
220	Field Data and Operating Time	AUF	134	214	178,344	0	0	1,330.92 MTBF Functional	Operational	05/83	04/85
220	Field Data and Operating Time	AUF	348	0	178,344	0	0	512.48 MTBMA	Operational	05/83	04/85
220	Field Data and Operating Time	AUF	109	117	173,620	0	0	1,592.84 MTBF Functional	Operational	05/83	04/85
220	Field Data and Operating Time	AUF	226	0	173,622	0	0	768.23 MTBMA	Operational	05/83	04/85

Test Equipment, Transducer

EQUIP ID	DATA SOURCE	APP ENV	FAILURES RELEVANT	NON-REL	TEST HOURS		SAMPLE SIZE	NUMERIC PARAMETER	PROGRAM PHASE	TEST DATE	
					OPERATE	NON-OP				START	END
145	Simulated Operation	AUF	0	0	3,778	0	0	5,451.65 MTBF Series	Development	07/72	11/74

**EQUIPMENT  
CHARACTERIZATION  
DATA**

## EQUIPMENT CHARACTERIZATION DATA

The following section contains detailed listings of equipment characterization data contained in the System RAM automated data base. Included are the following types of data, when known:

- Equipment ID Number
- Program ID Number
- Category
- Equipment Type
- Derating Guidelines
- Self Test Capability
- Replacement Level
- Design Approach/Technology
- Implementation
- Equipment Active Element Count
- Fault Control
- Cooling
- Fault Tolerance
- Screen Class
- Major Parameters

Each type of data presented above is described in further detail in the following pages.

The format used in presenting the detailed data for this section provides for two records per page organized by Equipment Identification Number. The phrase "Not Reported" is used to illustrate data types that are not known at this time. For data types with more than one possible description, an "X" is used to designate appropriate choices.

## USER'S GUIDE

The description below applies to the computer listings in this section. The data presented are the types of data that are considered when characterizing an equipment.

### Equipment ID:

Indicates the equipment identification number.

### Program ID:

Indicates the reference number assigned to the contract.

### Category:

Denotes the general functional purpose of an equipment as usually defined at the Set Equipment Level. The categories considered are:

- Computer
- Controls/Displays
- Electronic Countermeasures/Electronic Warfare
- Guidance/Navigation
- Test Equipment
- Radar
- Weapons
- Communications

### Equipment Type:

Denotes the specific functional purpose of the type of equipment as usually defined at the Group or Unit Equipment Level. The equipment types considered are:

Power Supply	Multiplexer/Demultiplexer
Transmitter	Interconnection/Distribution
Receiver	Converter D/A or A/D
Transceiver	Filter
Antenna	Inertial Reference
Amplifier, Audio	Stellar Reference
Amplifier, RF	Frequency/Timing Generator
Amplifier, Video	Cooling/Pressurizing
Computer	Test Circuitry
Memory	Alarm
I/O Device	Signal/Data Processor
Indicator/Control	Miscellaneous
Modulator/Demodulator	Transducer
Coder/Decoder	

#### Derating Guidelines:

Indicates the level of stress derating employed in the equipment design. The levels considered are:

High Reliability

Intermediate: "stress" derating practices less stringent than those employed on high-reliability designs but more stringent than commercial design practices.

Commercial Design Standards

#### Self Test Capability:

The highest applicable level of self test technology employed in the design is listed. The levels considered are:

Automated BIT  
Semiautomated BIT  
Manual BIT  
None

#### Replacement Level:

Lists the lowest functional level to which a failure or malfunction is capable of being diagnosed and the defective item replaced. The levels considered are:

- Equipment
- Unit (LRU/PRU)
- Assembly (SRU)
- Piece Part

#### Design Approach/Technology:

Design approaches and technologies consist of significant design approaches and special technological features used to describe the equipment.

#### Implementation

Indicates the hardware techniques employed in the implementation of self test in the design. The techniques considered are:

- General Purpose Computer
- BIT Microprocessor
- Software Controlled
- Hardware Controlled
- Automated Printout
- Manual Read Panel

#### Screen Class

All levels of quality assurance provisions applicable to part procurements for this design are indicated. The levels considered are:

JANTXV: JANTXV-grade semiconductors and JAN 38510 ICs

JANTX: JANTX-grade semiconductors and MIL-STD-883 screened ICs

JAN: JAN-grade semiconductors and hermetically sealed ICs

Commercial: Commercial-grade semiconductors and plastic encapsulated ICs

Major Parameters:

The applicable parameters of a design are entered. Each category has its unique set of parameters.

Active Element Count:

A measure of the complexity of the equipment. Quantities of the following categories are presented:

- Number of Hybrid Microcircuits
- Number of Monolithic Linear/Interface ICs
- Number of SSI/MSI Digital ICs
- Number of LSI/Memory ICs
- Number of Microprocessors
- Number of Total ICs (including Hybrids)
- Number of Tubes
- Number of Discrete Semiconductors
- Total Number of Active Elements



Fault Control:

Indicates each of the recovery techniques used to initiate fault control in the equipment and the methodology used in implementing each of the techniques. The techniques considered are:

- Automated On Line
- Automated Off Line
- Manual

Cooling:

Lists the type of cooling employed in the design. The types of cooling considered are:

- Ambient Air (Normal Convection)
- Forced Air (Fan)
- Liquid

Fault Tolerance:

Indicates the methodologies employed to alleviate the consequences of failure. The fault tolerance methods considered are:

- Redundant Channels (or Equipment)
- Graceful Degradation
- Degraded Modes
- None

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	1 Computer I/O Device Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Keyboard Entry Light Pen Non-Interactive Printer	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	79				
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	2 Computer Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Digital General Purpose Magnetic Core Magnetic Disk Pack Other Magnetic Tape	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	60 1.3ES				

EQUIPMENT ID		DESIGN APPROACH/TECHNOLOGY		IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
PROGRAM ID	4	General Purpose Computer	BIT Microprocessor	General Purpose Computer	BIT Microprocessor	Automated ON line	Automated OFF line	Weight	
CATEGORY	Computer	Software Controlled	Hardware Controlled	Software Controlled	Hardware Controlled	Manual	COOLING	Volume	
EQUIPMENT TYPE	Signal/Data	Automated Print Out	Manual Read Panel	Automated Print Out	Manual Read Panel	Ambient Air		Height	
DERATING GUIDELINES	Not Reported					Forced Air		Width	
SELF TEST CAPABILITY	Not Reported					Liquid		Depth	
REPLACEMENT LEVEL	Not Reported							Power	
								Modules	
								Clock Frequency	60
								Word Length	1.3E5
								Memory Size	
								Interrupt Levels	
								Memory I/O Rate	
								# of Busses	
								# of Registers	
								# of Accumulators	
								# of Input Ports	5
								# of Output Ports	2

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	6	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	2711	
PROGRAM ID		BIT Microprocessor	411	Automated OFF line	Volume	2.2E2	
CATEGORY	Radar	Software Controlled		Manual	Height	78	
EQUIPMENT TYPE	Computer (CPU)	Hardware Controlled			Width	168	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air	Depth	29	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power	7.5E3	
REPLACEMENT LEVEL	Assembly (SRU)			Liquid	Modules	379	
DESIGN APPROACH/TECHNOLOGY					Clock Frequency	5.0E6	
Dedicated		Hybrid		FAULT TOLERANCE	Word Length	24	
Digital		Linear/Interface	1,186	Redundant Channels	Memory Size	3.1E2	
Internal Semiconductor Memory		Digital SSI/MSI	5,741	Graceful Degrading	Interrupt Levels		
Surveillance/Search		Digital LSI & Memory	48	Degraded Modes	Memory I/O Rate		
Tracking		Microprocessor	0	None	# of Busses		
Traveling Wave Tube		Total IC's	7,386	SCREEN CLASS	# of Registers		
		Tubes	0	JAN TXV	# of Accumulators		
		Discretes	33,167	JAN TX	# of Input Ports		
		TOTAL ELEMENTS	40,553	JAN Grade	# of Output Ports		
				Commercial Grade			
				X			
				X			
===== IMPLEMENTATION =====				FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	7	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	888	
PROGRAM ID		BIT Microprocessor		Automated OFF line	Volume	7.9E1	
CATEGORY	Radar	Software Controlled		Manual	Height	78	
EQUIPMENT TYPE	Memory	Hardware Controlled			Width	60	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air	Depth	29	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power	1.5E3	
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	308	
DESIGN APPROACH/TECHNOLOGY					Clock Frequency	5.0E6	
Non Volatile		Hybrid		FAULT TOLERANCE	Retrieval Time	65	
Semiconductor		Linear/Interface	316	Redundant Channels	Word Length	24	
Serial		Digital SSI/MSI	123	Graceful Degrading	Memory Size	3.1E2	
Surveillance/Search		Digital LSI & Memory	2,379	Degraded Modes	I/O Rate		
Tracking		Microprocessor	48	None			
Traveling Wave Tube		Total IC's	0	SCREEN CLASS			
		Tubes	2,866	JAN TXV			
		Discretes	0	JAN TX			
		TOTAL ELEMENTS	253	JAN Grade			
			3,119	Commercial Grade			
				X			

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	8	General Purpose Computer		Automated ON line		Weight					
PROGRAM ID		BIT Microprocessor		Automated OFF line		Volume					
CATEGORY	Radar	Software Controlled		Manual		Height					
EQUIPMENT TYPE	Frequency/Timing Gen.	Hardware Controlled		COOLING		Width					
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air		Depth					
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air		Power					
REPLACEMENT LEVEL	Not Reported			Liquid		Modules					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Reference Frequency					
Not Reported		Hybrid		Redundant Channels		Frequency Drift					
Semiconductor		Linear/Interface		Graceful Degradation		Output Frequency					
Serial		Digital SSI/MSI		Degraded Modes		Output Voltage					
Surveillance/Search		Digital LSI & Memory		None		Output Impedance					
Tracking		Microprocessor		SCREEN CLASS							
Traveling Wave Tube		Total IC's		JAN TXV							
		Tubes		JAN TX							
		Discretes		JAN Grade							
		TOTAL ELEMENTS		Commercial Grade							
		Not Reported		X							
				X							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	9	General Purpose Computer		Automated ON line		Weight					
PROGRAM ID		BIT Microprocessor		Automated OFF line		Volume					
CATEGORY	Radar	Software Controlled		Manual		Height					
EQUIPMENT TYPE	Signal/Data	Hardware Controlled		COOLING		Width					
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air		Depth					
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air		Power					
REPLACEMENT LEVEL	Assembly (SRU)			Liquid		Modules					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Clock Frequency					
Dedicated		Hybrid		Redundant Channels		Word Length					
Digital		Linear/Interface		Graceful Degradation		Memory Size					
Internal Semiconductor Memory		Digital SSI/MSI		Degraded Modes		Interrupt Levels					
Surveillance/Search		Digital LSI & Memory		None		Memory I/O Rate					
Tracking		Microprocessor		SCREEN CLASS		# of Busses					
Traveling Wave Tube		Total IC's		JAN TXV		# of Registers					
		Tubes		JAN TX		# of Accumulators					
		Discretes		JAN Grade		# of Input Ports					
		TOTAL ELEMENTS		Commercial Grade		# of Output Ports					
		37,434		X							
				X							

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	10 Radar Signal/Data Not Reported Semi Automated Bit Assembly (SRU)	General Purpose Computer X BIT Microprocessor Software Controlled X Hardware Controlled X Automated Print Out Manual Read Panel X	Automated ON line Automated OFF line Manual Ambient Air Forced Air X Liquid	COOLING	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	2481		
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
Dedicated Digital Int Processor Mag Core Memory Surveillance/Search Tracking Traveling Wave Tube		ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade X Commercial Grade X	SCREEN CLASS	317 64 21,047 5,377 0 26,805 0 619 27,424	1.9E4 442 1.0E7 150 1.0E3		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	11 Radar Converter Not Reported Not Reported Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air Forced Air X Liquid	COOLING	Weight Volume Height Width Depth Power Modules # of Bits Clock Frequency Freq. Band Input Freq. Band Output	1.0E2 78 72 32		
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
Discrete Components Frequency Converter Hybrid Monolithic Tracking Traveling Wave Tube		ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade X Commercial Grade X	SCREEN CLASS	236 141 900 2 0 1,279 0 77 1,356	6.0E6 L VHF		

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	12	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Weight	Frequency Band	Volume	
PROGRAM ID		Fixed	BIT Microprocessor	Automated OFF line	Volume	L	1134	
CATEGORY	Radar	Frequency Converter	Software Controlled	Manual	Height	V	2278	
EQUIPMENT TYPE	Antenna	Hybrid	Hardware Controlled	COOLING	Width			
DERATING GUIDELINES	Not Reported	Monolithic	Automated Print Out	Ambient Air	Depth			
SELF TEST CAPABILITY	Automated Bit	Tracking	Manual Read Panel	Forced Air	Power			
REPLACEMENT LEVEL	Not Reported	Traveling Wave Tube		Liquid	Modules			
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE				
			Hybrid	Redundant Channels				
			Linear/Interface	Graceful Degrading				
			Digital SSI/MSI	Degraded Modes				
			Digital LSI & Memory	None				
			Microprocessor	SCREEN CLASS				
			Total IC'S	JAN TXV				
			Tubes	JAN TX				
			Discretes	JAN Grade				
			TOTAL ELEMENTS	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	13	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Weight	Frequency Band	Volume	
PROGRAM ID		Pulse	BIT Microprocessor	Automated OFF line	Volume	L	48.2	
CATEGORY	Radar	Tube	Software Controlled	Manual	Height			
EQUIPMENT TYPE	Amplifier, RF	Hybrid	Hardware Controlled	COOLING	Width			
DERATING GUIDELINES	Not Reported	Monolithic	Automated Print Out	Ambient Air	Depth			
SELF TEST CAPABILITY	Not Reported	Tracking	Manual Read Panel	Forced Air	Power			
REPLACEMENT LEVEL	Not Reported	Traveling Wave Tube		Liquid	Modules			
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE				
			Hybrid	Redundant Channels				
			Linear/Interface	Graceful Degrading				
			Digital SSI/MSI	Degraded Modes				
			Digital LSI & Memory	None				
			Microprocessor	SCREEN CLASS				
			Total IC'S	JAN TXV				
			Tubes	JAN TX				
			Discretes	JAN Grade				
			TOTAL ELEMENTS	Commercial Grade				

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID 14				EQUIPMENT ID 15			
PROGRAM ID				PROGRAM ID			
CATEGORY				CATEGORY			
EQUIPMENT TYPE				EQUIPMENT TYPE			
DERATING GUIDELINES				DERATING GUIDELINES			
SELF TEST CAPABILITY				SELF TEST CAPABILITY			
REPLACEMENT LEVEL				REPLACEMENT LEVEL			
DESIGN APPROACH/TECHNOLOGY				DESIGN APPROACH/TECHNOLOGY			
Tube				Dedicated			
Tube				Digital			
Hybrid				Int Processor Mag Core Memory			
Monolithic				Synchronous			
Tracking				Tracking			
Traveling Wave Tube				Traveling Wave Tube			
General Purpose Computer				General Purpose Computer X			
BIT Microprocessor				BIT Microprocessor			
Software Controlled				Software Controlled			
Hardware Controlled				Hardware Controlled			
Automated Print Out				Automated Print Out			
Manual Read Panel				Manual Read Panel			
ACTIVE ELEMENT COUNT				ACTIVE ELEMENT COUNT			
Hybrid				Hybrid			
Linear/Interface				Linear/Interface			
Digital SSI/MSI				Digital SSI/MSI			
Digital LSI & Memory				Digital LSI & Memory			
Microprocessor				Microprocessor			
Total IC's				Total IC's			
Tubes				Tubes			
Discretes				Discretes			
TOTAL ELEMENTS				TOTAL ELEMENTS			
Automated ON line				Automated ON line			
Automated OFF line				Automated OFF line			
Manual				Manual			
Ambient Air				Ambient Air			
Forced Air				Forced Air			
Liquid				Liquid			
FAULT TOLERANCE				FAULT TOLERANCE			
Redundant Channels				Redundant Channels			
Graceful Degrading				Graceful Degrading			
Degraded Modes				Degraded Modes			
None				None			
SCREEN CLASS				SCREEN CLASS			
JAN TXV				JAN TXV			
JAN TX				JAN TX			
JAN Grade				JAN Grade			
Commercial Grade				Commercial Grade			
Weight				Weight			
Volume				Volume			
Height				Height			
Width				Width			
Depth				Depth			
Power				Power			
Modules				Modules			
Frequency Band				Clock Frequency			
Gain				Word Length			
Peak Power Out				Memory Size			
Average Power Out				Interrupt Levels			
Duty Cycle				Memory I/O Rate			
				# of Busses			
				# of Registers			
				# of Accumulators			
				# of Input Ports			
				# of Output Ports			



EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	ACTIVE ELEMENT COUNT	FAULT CONTROL	MAJOR PARAMETERS
16	16	Radar	Transmitter	Not Reported	Automated Bit	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	X	79 156 147 0 0 382 108 18,722 19,212	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air X Liquid X  Redundant Channels Graceful Degrading X Degraded Modes X None  SCREEN CLASS JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight 99799 Volume 1.3E4 Height Width Depth Power 9.2E5 Modules 986 Frequency Band L Peak Power Out 1.5E7 Average Power Out 9.2E5 # of Simultaneous Channels Channel Width Pulse Repetition 30 Frequency Digital Data Rate # of Selectable Frequencies Frequency Stability Duty Cycle
17	17	Radar	Amplifier, RF	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid X  Redundant Channels Graceful Degrading X Degraded Modes X None  SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight 12000 Volume 1.3E2 Height 90 Width 60 Depth 40 Power 7 Modules L Frequency Band Gain Peak Power Out Average Power Out 1.6E5 Duty Cycle

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	18 Radar Indicator/Control Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Electromechanical		ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules	450 1.4E2 90 62 42 42 14				
				2	COOLING						
				0	X						
				0	X						
				0							
				0							
				2							
				0	X						
				205	X						
TOTAL ELEMENTS				207	Commercial Grade	Input Volts					

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			2U			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			2U			General Purpose Computer			Automated ON line			Weight		
CATEGORY			Radar			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Modulator/Demodulator			Software Controlled			Manual			Height		
DERATING GUIDELINES			Not Reported			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Not Reported			Automated Print Out			Ambient Air			Depth		
REPLACEMENT LEVEL			Not Reported			Manual Read Panel			Forced Air			Power		
									Liquid			Modules		
												Carrier Frequency		
DESIGN APPROACH/TECHNOLOGY						ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Modulation Rate		
Radio Frequency						Hybrid			Redundant Channels			Modulation Baud Rate		
Tube						Linear/Interface			Graceful Degradation			PRF		
Meter						Digital SSI/MSI			Degraded Modes			Peak Volts Output		
Visual						Digital LSI & Memory			None			# of Combined Signal		
Tracking						Microprocessor			SCREEN CLASS					
Traveling Wave Tube						Total IC'S			JAN TXV					
						Tubes			JAN TX					
						Discretes			JAN Grade			X		
						TOTAL ELEMENTS			Commercial Grade					

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID		EQUIPMENT NAME		EQUIPMENT TYPE		EQUIPMENT CATEGORY		EQUIPMENT DESCRIPTION		EQUIPMENT CHARACTERISTICS		EQUIPMENT PARAMETERS	
PROGRAM ID		PROGRAM NAME		PROGRAM TYPE		PROGRAM CATEGORY		PROGRAM DESCRIPTION		PROGRAM CHARACTERISTICS		PROGRAM PARAMETERS	
EQUIPMENT TYPE		EQUIPMENT NAME		EQUIPMENT TYPE		EQUIPMENT CATEGORY		EQUIPMENT DESCRIPTION		EQUIPMENT CHARACTERISTICS		EQUIPMENT PARAMETERS	
DERATING GUIDELINES		DERATING NAME		DERATING TYPE		DERATING CATEGORY		DERATING DESCRIPTION		DERATING CHARACTERISTICS		DERATING PARAMETERS	
SELF TEST CAPABILITY		SELF TEST NAME		SELF TEST TYPE		SELF TEST CATEGORY		SELF TEST DESCRIPTION		SELF TEST CHARACTERISTICS		SELF TEST PARAMETERS	
REPLACEMENT LEVEL		REPLACEMENT NAME		REPLACEMENT TYPE		REPLACEMENT CATEGORY		REPLACEMENT DESCRIPTION		REPLACEMENT CHARACTERISTICS		REPLACEMENT PARAMETERS	
DESIGN APPROACH/TECHNOLOGY		DESIGN NAME		DESIGN TYPE		DESIGN CATEGORY		DESIGN DESCRIPTION		DESIGN CHARACTERISTICS		DESIGN PARAMETERS	
Electromechanical		Electromechanical		Electromechanical		Electromechanical		Electromechanical		Electromechanical		Electromechanical	
Manual		Manual		Manual		Manual		Manual		Manual		Manual	
Meter		Meter		Meter		Meter		Meter		Meter		Meter	
Multicolor		Multicolor		Multicolor		Multicolor		Multicolor		Multicolor		Multicolor	
Visual		Visual		Visual		Visual		Visual		Visual		Visual	
Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube	
EQUIPMENT ID		EQUIPMENT NAME		EQUIPMENT TYPE		EQUIPMENT CATEGORY		EQUIPMENT DESCRIPTION		EQUIPMENT CHARACTERISTICS		EQUIPMENT PARAMETERS	
PROGRAM ID		PROGRAM NAME		PROGRAM TYPE		PROGRAM CATEGORY		PROGRAM DESCRIPTION		PROGRAM CHARACTERISTICS		PROGRAM PARAMETERS	
EQUIPMENT TYPE		EQUIPMENT NAME		EQUIPMENT TYPE		EQUIPMENT CATEGORY		EQUIPMENT DESCRIPTION		EQUIPMENT CHARACTERISTICS		EQUIPMENT PARAMETERS	
DERATING GUIDELINES		DERATING NAME		DERATING TYPE		DERATING CATEGORY		DERATING DESCRIPTION		DERATING CHARACTERISTICS		DERATING PARAMETERS	
SELF TEST CAPABILITY		SELF TEST NAME		SELF TEST TYPE		SELF TEST CATEGORY		SELF TEST DESCRIPTION		SELF TEST CHARACTERISTICS		SELF TEST PARAMETERS	
REPLACEMENT LEVEL		REPLACEMENT NAME		REPLACEMENT TYPE		REPLACEMENT CATEGORY		REPLACEMENT DESCRIPTION		REPLACEMENT CHARACTERISTICS		REPLACEMENT PARAMETERS	
DESIGN APPROACH/TECHNOLOGY		DESIGN NAME		DESIGN TYPE		DESIGN CATEGORY		DESIGN DESCRIPTION		DESIGN CHARACTERISTICS		DESIGN PARAMETERS	
AC Input		AC Input		AC Input		AC Input		AC Input		AC Input		AC Input	
DC Output		DC Output		DC Output		DC Output		DC Output		DC Output		DC Output	
Fixed Voltage Output		Fixed Voltage Output		Fixed Voltage Output		Fixed Voltage Output		Fixed Voltage Output		Fixed Voltage Output		Fixed Voltage Output	
Over 150 Volts		Over 150 Volts		Over 150 Volts		Over 150 Volts		Over 150 Volts		Over 150 Volts		Over 150 Volts	
Solid State		Solid State		Solid State		Solid State		Solid State		Solid State		Solid State	
Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube		Traveling Wave Tube	

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
24		Radar	Indicator/Control	Automatic	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air X Forced Air Liquid	Weight ~50 Volume 3.5E1 Height 72 Width 28 Depth 30 Power Modules 1 Input Rate Output Rate # of Keys # of Controls 5 Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid 0	Redundant Channels	
					Linear/Interface 0	Graceful Degradation	
					Digital SSI/MSI 0	Degraded Modes	
					Digital LSI & Memory 0	None	
					Microprocessor 0	SCREEN CLASS	
					Total IC's 0	JAN TXV	
					Tubes 0	JAN TX X	
					Discretes 10	JAN Grade X	
					TOTAL ELEMENTS 10	Commercial Grade	
25		Guidance/Navigation	Not Reported	Infrared	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air X Forced Air X Liquid	Weight 47 Volume 1.9E0 Height Width Depth Power Modules 29 Position Accuracy 1.8E3 Range 3.9E2 Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band UHF
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid 0	Redundant Channels	
					Linear/Interface 114	Graceful Degradation	
					Digital SSI/MSI 309	Degraded Modes	
					Digital LSI & Memory 0	None	
					Microprocessor 0	SCREEN CLASS	
					Total IC's 423	JAN TXV	
					Tubes 3	JAN TX X	
					Discretes 433	JAN Grade	
					TOTAL ELEMENTS 859	Commercial Grade	

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL
26	Radar	Indicator/Control	Not Reported	Not Reported	Not Reported	
<b>DESIGN APPROACH/TECHNOLOGY</b>						
Electromechanical						
Manual						
Fixed Voltage Output						
Over 150 Volts						
Solid State						
Traveling Wave Tube						
<b>IMPLEMENTATION</b>						
General Purpose Computer						
BIT Microprocessor						
Software Controlled						
Hardware Controlled						
Automated Print Out						
Manual Read Panel						
<b>ACTIVE ELEMENT COUNT</b>						
Hybrid						
Linear/Interface						
Digital SSI/MSI						
Digital LSI & Memory						
Microprocessor						
Total IC's						
Tubes						
Discretes						
TOTAL ELEMENTS						
<b>FAULT CONTROL</b>						
Automated ON line						
Automated OFF line						
Manual						
Cooling						
Ambient Air X						
Forced Air						
Liquid						
<b>FAULT TOLERANCE</b>						
Redundant Channels						
Graceful Degrading						
Degraded Modes						
None						
SCREEN CLASS						
JAN TXV						
X						
JAN TX						
JAN Grade						
Commercial Grade						
<b>MAJOR PARAMETERS</b>						
Weight						
Volume						
Height						
Width						
Depth						
Power						
Modules						
# of Signals						
Frequency Band						
Power Level						

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	28 Guidance/Navigation Transceiver Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	27 0.5E0 7 8 15 18 UHF
			0	COOLING		
			54	FAULT TOLERANCE		
			285	Redundant Channels		
			0	Graceful Degrading		
			0	Degraded Modes		
			0	None		
			339	SCREEN CLASS		
			3	JAN TXV		
			312	JAN TX		
			654	JAN Grade		
				Commercial Grade		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	29 Communications Modulator/Demodulator Not Reported Manual Bite Assembly (SRU)	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Carrier Frequency Modulation Rate Modulation Baud Rate PRF Peak Volts Output # of Combined Signal	90 2.4E0 10 19 22 29
			25	COOLING		
			64	FAULT TOLERANCE		
			620	Redundant Channels		
			65	Graceful Degrading		
			0	Degraded Modes		
			0	None		
			774	SCREEN CLASS		
			0	JAN TXV		
			482	JAN TX		
			1,256	JAN Grade		
				Commercial Grade		

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID			30			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			30			General Purpose Computer			Automated ON line			Weight		
CATEGORY			Controls/Displays			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Indicator/Control			Software Controlled			Manual			Height		
DERATING GUIDELINES			Not Reported			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Not Reported			Automated Print Out			Ambient Air X			Depth		
REPLACEMENT LEVEL			Not Reported			Manual Read Panel			Forced Air			Power		
									Liquid			Modules		
												Input Rate		
												Output Rate		
												# of Keys		
												# of Controls		
												Resolution		
												# of Lines		
												# of Characters/Line		
												Display Area		
												Display Diagonal		
												# of Annunciators		
												Input Volts		



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	32		General Purpose Computer		Automated ON line	Weight	6	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Controls/Displays		Software Controlled		Manual	Height	4	
EQUIPMENT TYPE	Indicator/Control		Hardware Controlled			Width	4	
DERATING GUIDELINES	Not Reported		Automated Print Out			Depth	8	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Power	9.0E0	
REPLACEMENT LEVEL	Not Reported					Modules	10	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
Automatic			ACTIVE ELEMENT COUNT			Input Rate		
Electromechanical			Hybrid	7	Redundant Channels	Output Rate		
Graphic			Linear/Interface	0	Graceful Degrading	# of Keys		
Meter			Digital SSI/MSI	0	Degraded Modes	# of Controls	2	
Servo			Digital LSI & Memory	0	None	Resolution		
Visual			Microprocessor	0	SCREEN CLASS	# of Lines		
			Total IC'S	7		# of Characters/Line		
			Tubes	0	JAN TXV	Display Area		
			Discretes	1	JAN TX	Display Diagonal		
			TOTAL ELEMENTS	8	JAN Grade	# of Annunciators	3	
					Commercial Grade	Input Volts		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	33		General Purpose Computer		Automated ON line	Weight	2	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Controls/Displays		Software Controlled		Manual	Height	3	
EQUIPMENT TYPE	Indicator/Control		Hardware Controlled			Width	3	
DERATING GUIDELINES	Not Reported		Automated Print Out			Depth	7	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Power	1.9E1	
REPLACEMENT LEVEL	Not Reported					Modules	5	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
Alphanumeric			ACTIVE ELEMENT COUNT			Input Rate		
Automatic			Hybrid	0	Redundant Channels	Output Rate		
Electromechanical			Linear/Interface	4	Graceful Degrading	# of Keys		
Meter			Digital SSI/MSI	0	Degraded Modes	# of Controls	1	
Servo			Digital LSI & Memory	0	None	Resolution		
Visual			Microprocessor	0	SCREEN CLASS	# of Lines		
			Total IC'S	4		# of Characters/Line		
			Tubes	0	JAN TXV	Display Area	8	
			Discretes	48	JAN TX	Display Diagonal	3	
			TOTAL ELEMENTS	52	JAN Grade	# of Annunciators	4	
					Commercial Grade	Input Volts		

## EQUIPMENT CHARACTERIZATION

IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID	34			General Purpose Computer				Automated ON Line		Weight	18
PROGRAM ID				BIT Microprocessor				Automated OFF Line		Volume	0.4E0
CATEGORY	Guidance/Navigation			Software Controlled				Manual		Height	8
EQUIPMENT TYPE	Inertial Reference			Hardware Controlled						Width	9
DERATING GUIDELINES	Not Reported			Automated Print Out				Ambient Air	X	Depth	10
SELF TEST CAPABILITY	None			Manual Read Panel				Forced Air		Power	2.6E2
REPLACEMENT LEVEL	Assembly (SRU)							Liquid		Modules	15
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT				FAULT TOLERANCE			
Analog				Hybrid				Redundant Channels		Position Accuracy	
Digital				Linear/Interface				Graceful Degradation	X	Velocity Accuracy	
Electrically Driven Gyro				Digital SSI/MSI				Degraded Modes		Heading Accuracy	
Electrolytic Accelerometer				Digital LSI & Memory				None		Range	
Gimbaled				Microprocessor				SCREEN CLASS		Drift Rate	
Visual				Total IC'S				JAN TXV		# of Gimbals	2
				Tubes				JAN TX		# of Gyros	1
				Discretes				JAN Grade	X	# of Accelerometers	1
				TOTAL ELEMENTS				Commercial Grade	X		
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT				FAULT TOLERANCE			
Digital				Hybrid				Redundant Channels		Weight	40
General Purpose				Linear/Interface				Graceful Degradation		Volume	0.9E0
Int Processor Mag Core Memory				Digital SSI/MSI				Degraded Modes		Height	8
Parallel				Digital LSI & Memory				None		Width	13
Gimbaled				Microprocessor				SCREEN CLASS		Depth	16
Visual				Total IC'S				JAN TXV		Power	3.0E2
				Tubes				JAN TX		Modules	13
				Discretes				JAN Grade	X	Clock Frequency	
				TOTAL ELEMENTS				Commercial Grade		Word Length	34
										Memory Size	2.4E4
										Interrupt Levels	16
										Memory I/O Rate	
										# of Busses	4
										# of Registers	
										# of Accumulators	16
										# of Input Ports	16
										# of Output Ports	4

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID				IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
PROGRAM ID				General Purpose Computer				Automated ON line				Weight			
CATEGORY				BIT Microprocessor				Automated OFF line				Volume			
EQUIPMENT TYPE				Software Controlled				Manual				Height			
DERATING GUIDELINES				Hardware Controlled				Ambient Air				Width			
SELF TEST CAPABILITY				Automated Print Out				Forced Air				Depth			
REPLACEMENT LEVEL				Manual Read Panel				Liquid				Power			
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT				FAULT TOLERANCE				Modules			
Alphanumeric				Hybrid				Redundant Channels				Input Rate			
Electromechanical				Linear/Interface				Graceful Degrading				# of Keys			
Manual				Digital SSI/MSI				Degraded Modes				# of Controls			
Parallel				Digital LSI & Memory				None				Resolution			
Gimbaled				Microprocessor				SCREEN CLASS				# of Lines			
Visual				Total IC'S				JAN TXV				# of Characters/Line			
				Tubes				JAN TX				Display Area			
				Discretes				JAN Grade				Display Diagonal			
				TOTAL ELEMENTS				Commercial Grade				# of Annunciators			
												Input Volts			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====					
EQUIPMENT ID	38			General Purpose Computer			Automated ON line	Weight			2		
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.1E0		
CATEGORY	Communications			Software Controlled			Manual	Reconfiguration			3		
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled			COOLING	Fault Detection			6		
DERATING GUIDELINES	High Reliability			Automated Print Out			Ambient Air	X			4		
SELF TEST CAPABILITY	Automated Bit			Manual Read Panel			Forced Air				1.5E1		
REPLACEMENT LEVEL	Piece Part						Liquid				4		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Input Rate					
Alphanumeric				ACTIVE ELEMENT COUNT			Redundant Channels						
Electromechanical				Hybrid			Graceful Degrading						
Manual				Linear/Interface			Degraded Modes						
Parallel				Digital SSI/MSI			None						
Gimbaled				Digital LSI & Memory			SCREEN CLASS				9		
Visual				Microprocessor			JAN TXV	X					
				Total IC'S			JAN TX	X					
				Tubes			JAN Grade	X					
				Discretes			Commercial Grade						
				TOTAL ELEMENTS									
				68									
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====					
EQUIPMENT ID	39			General Purpose Computer			Automated ON line	Weight			1		
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.1E0		
CATEGORY	Communications			Software Controlled			Manual	Reconfiguration			2		
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled			COOLING	Fault Detection			6		
DERATING GUIDELINES	High Reliability			Automated Print Out			Ambient Air	X			4		
SELF TEST CAPABILITY	None			Manual Read Panel			Forced Air				6.0E0		
REPLACEMENT LEVEL	Piece Part						Liquid				2		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Input Rate					
Alphanumeric				ACTIVE ELEMENT COUNT			Redundant Channels						
Electromechanical				Hybrid			Graceful Degrading						
Manual				Linear/Interface			Degraded Modes						
Parallel				Digital SSI/MSI			None						
Gimbaled				Digital LSI & Memory			SCREEN CLASS				6		
Visual				Microprocessor			JAN TXV						
				Total IC'S			JAN TX						
				Tubes			JAN Grade	X					
				Discretes			Commercial Grade						
				TOTAL ELEMENTS									
				0									

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	42			General Purpose Computer		Automated ON line	Reconfiguration	Weight	1		
PROGRAM ID				BIT Microprocessor		Automated OFF line	Reconfiguration	Volume	0.1E0		
CATEGORY	Communications			Software Controlled		Manual	Reconfiguration	Height	2		
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled				Width	6		
DERATING GUIDELINES	High Reliability			Automated Print Out				Depth	4		
SELF TEST CAPABILITY	None			Manual Read Panel				Power	1.3E1		
REPLACEMENT LEVEL	Piece Part							Modules	2		
===== DESIGN APPROACH/TECHNOLOGY =====				===== ACTIVE ELEMENT COUNT =====				===== FAULT TOLERANCE =====			
Alpha/numeric				Hybrid	0	Redundant Channels		Input Rate			
Electromechanical				Linear/Interface	0	Graceful Degradation		Output Rate			
Manual				Digital SSI/MSI	0	Degraded Modes		# of Keys			
Parallel				Digital LSI & Memory	0	None	X	# of Controls	3		
Gimbaled				Microprocessor	0	SCREEN CLASS		Resolution			
Visual				Total IC'S	0	JAN TXV		# of Lines			
				Tubes	0	JAN TX		# of Characters/Line			
				Discretes	0	JAN Grade	X	Display Area			
				TOTAL ELEMENTS	0	Commercial Grade		Display Diagonal			
								# of Annunciators			
								Input Volts			
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	43			General Purpose Computer		Automated ON line	Reconfiguration	Weight	15		
PROGRAM ID				BIT Microprocessor		Automated OFF line	Reconfiguration	Volume	0.3E0		
CATEGORY	Computer			Software Controlled	X	Manual	Reconfiguration	Height	11		
EQUIPMENT TYPE				Hardware Controlled				Width	7		
DERATING GUIDELINES	High Reliability			Automated Print Out				Depth	8		
SELF TEST CAPABILITY	Automated Bit			Manual Read Panel	X			Power	8.0E1		
REPLACEMENT LEVEL	Piece Part							Modules	16		
===== DESIGN APPROACH/TECHNOLOGY =====				===== ACTIVE ELEMENT COUNT =====				===== FAULT TOLERANCE =====			
Analog				Hybrid	0	Redundant Channels		Clock Frequency	2.0E6		
Dedicated				Linear/Interface	42	Graceful Degradation		Word Length	16		
Digital				Digital SSI/MSI	217	Degraded Modes		Memory Size	1.1E3		
Error Correction				Digital LSI & Memory	18	None	X	Interrupt Levels	2		
Parallel				Microprocessor	0	SCREEN CLASS		# of Busses	2		
Parity Checking				Total IC'S	277	JAN TXV		Memory I/O Rate			
Semiconductor				Tubes	0	JAN TX		# of Registers	6		
Serial				Discretes	188	JAN Grade	X	# of Accumulators	2		
				TOTAL ELEMENTS	465	Commercial Grade		# of Input Ports	16		
								# of Output Ports	16		

$\text{MA}_{\text{J}} \cdot \text{JK} = A - \text{MF} : x$ 

4-30

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	46	DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Weight		29	
PROGRAM ID		Digital Data		Hybrid		Automated OFF line		Volume		0.5E0	
CATEGORY	Guidance/Navigation	Pulse Code Modulated		Linear/Interface		Manual		Height		7	
EQUIPMENT TYPE	Transceiver	Solid State		Digital SSI/MSI		COOLING		Width		7	
DERATING GUIDELINES	Not Reported	Tube		Digital LSI & Memory		Ambient Air		Depth		17	
SELF TEST CAPABILITY	Not Reported	Variable Frequency		Microprocessor		Forced Air		Power		1.6E2	
REPLACEMENT LEVEL	Not Reported	Parity Checking		Total IC's		Liquid		Modules		10	
		Semiconductor		Tubes				Frequency Band		UHF	
		Serial		Discretes				Peak Power Out		4.0E3	
				TOTAL ELEMENTS				Average Power Out		2.7E3	
				1,005				# of Selectable		Frequencies	
								Frequency Stability			
								Digital Data Rate			
								Receiver Sensitivity			
								Pulse Repetition			
								Frequency			
=====											
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	48	DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Weight		56	
PROGRAM ID		Electronic Warfare		Hybrid		Automated OFF line		Volume		0.5E0	
CATEGORY				Linear/Interface		Manual		Height			
EQUIPMENT TYPE				Digital SSI/MSI		COOLING		Width			
DERATING GUIDELINES	Not Reported			Digital LSI & Memory		Ambient Air		Depth			
SELF TEST CAPABILITY	Not Reported			Microprocessor		Forced Air		Power		1.7E2	
REPLACEMENT LEVEL	Not Reported			Total IC's		Liquid		Modules		38	
				Tubes				Frequency Band			
				Discretes				Range			
				TOTAL ELEMENTS				Peak RF Power			
				528				Average RF Power			
				1							
				155							
				684							



# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			General Purpose Computer			Automated ON line			Weight		
CATEGORY			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Software Controlled			Manual			Height		
DERATING GUIDELINES			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Automated Print Out			Ambient Air			Depth		
REPLACEMENT LEVEL			Manual Read Panel			Forced Air			Power		
DESIGN APPROACH/TECHNOLOGY			Not Reported			Liquid			Modules		
Not Reported			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Frequency Band		
Pulse Code Modulated			Hybrid			Redundant Channels			Polarization		
Solid State			Linear/Interface			Graceful Degrading			Gain		
Tube			Digital SSI/MSI			Degraded Modes			Effective Area		
Variable Frequency			Digital LSI & Memory			None			Beam Width		
Parity Checking			Microprocessor			SCREEN CLASS			Azimuth Scan Rate		
Semiconductor			Total IC'S			JAN TXV			Elevation Scan Rate		
Serial			Tubes			JAN TX			Scan Sector Width		
			Discretes			JAN Grade					
			TOTAL ELEMENTS			Commercial Grade					

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	54	General Purpose Computer	Automated ON line	Weight	3			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	0.1E0			
CATEGORY	Electronic Warfare	Software Controlled	Manual	Height	6			
EQUIPMENT TYPE	Antenna	Hardware Controlled	COOLING	Width	6			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	16			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	1			
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Frequency Band		
Not Reported		Hybrid	Redundant Channels	Polarization				
Pulse Code Modulated		Linear/Interface	Graceful Degrading	Gain				
Solid State		Digital SSI/MSI	Degraded Modes	Effective Area				
Tube		Digital LSI & Memory	None	Beam Width				
Variable Frequency		Microprocessor	SCREEN CLASS	Azimuth Scan Rate				
Parity Checking		Total IC'S	JAN TXV	Elevation Scan Rate				
Semiconductor		Tubes	JAN TX	Scan Sector Width				
Serial		Discretes	JAN Grade					
		TOTAL ELEMENTS	Commercial Grade					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	56	General Purpose Computer	Automated ON line	Weight	4			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	0.1E0			
CATEGORY	Electronic Warfare	Software Controlled	Manual	Height	4			
EQUIPMENT TYPE	Mux/Demux	Hardware Controlled	COOLING	Width	4			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	9			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	1			
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Carrier Frequency		
Not Reported		Hybrid	Redundant Channels	Modulation Rate				
Pulse Code Modulated		Linear/Interface	Graceful Degrading	Modulation Baud Rate				
Solid State		Digital SSI/MSI	Degraded Modes	PRF				
Tube		Digital LSI & Memory	None	Peak Volts Output				
Variable Frequency		Microprocessor	SCREEN CLASS	# of Combined Signal				
Parity Checking		Total IC'S	JAN TXV					
Semiconductor		Tubes	JAN TX					
Serial		Discretes	JAN Grade					
		TOTAL ELEMENTS	Commercial Grade					

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			General Purpose Computer			Automated ON line			Weight		
CATEGORY			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Software Controlled			Manual			Height		
DERATING GUIDELINES			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Automated Print Out			Ambient Air			Depth		
REPLACEMENT LEVEL			Manual Read Panel			Forced Air			Power		
						Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Frequency Band		
Not Reported			Hybrid			Redundant Channels			Peak Power Out		
Pulse Code Modulated			Linear/Interface			Graceful Degrading			Average Power Out		
Solid State			Digital SSI/MSI			Degraded Modes			# of Selectable		
Tube			Digital LSI & Memory			None			Frequencies		
Variable Frequency			Microprocessor			SCREEN CLASS			Frequency Stability		
Parity Checking			Total IC's			JAN TXV			Digital Data Rate		
Semiconductor			Tubes			JAN TX			Receiver Sensitivity		
Serial			Discretes			JAN Grade			Pulse Repetition		
			TOTAL ELEMENTS			Commercial Grade			Frequency		
EQUIPMENT ID			General Purpose Computer			Automated ON line			Weight		
PROGRAM ID			BIT Microprocessor			Automated OFF line			Volume		
CATEGORY			Software Controlled			Manual			Height		
EQUIPMENT TYPE			Hardware Controlled			COOLING			Width		
DERATING GUIDELINES			Automated Print Out			Ambient Air			Depth		
SELF TEST CAPABILITY			Manual Read Panel			Forced Air			Power		
REPLACEMENT LEVEL						Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Input Rate		
Not Reported			Hybrid			Redundant Channels			Output Rate		
Pulse Code Modulated			Linear/Interface			Graceful Degrading			# of Keys		
Solid State			Digital SSI/MSI			Degraded Modes			# of Controls		
Tube			Digital LSI & Memory			None			Resolution		
Variable Frequency			Microprocessor			SCREEN CLASS			# of Lines		
Parity Checking			Total IC's			JAN TXV			# of Characters/Line		
Semiconductor			Tubes			JAN TX			Display Area		
Serial			Discretes			JAN Grade			Display Diagonal		
			TOTAL ELEMENTS			Commercial Grade			# of Annunciators		
									Input Volts		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	62		General Purpose Computer		Automated ON line	Weight		
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	6.5E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height		
EQUIPMENT TYPE			Hardware Controlled			Width		
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth		
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power	7.2E3	
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	45	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band	
Multichannel/Multifrequency			Hybrid	0	Redundant Channels	Range		
Multimode Capability			Linear/Interface	640	Graceful Degrading	Peak RF Power		
Pulsed			Digital SSI/MSI	967	Degraded Modes	Average RF Power		
Traveling Wave Tube			Digital LSI & Memory	21	None			
Variable Frequency			Microprocessor	9	SCREEN CLASS			
Parity Checking			Total IC'S	1,637	JAN TXV	X		
Semiconductor			Tubes	4	JAN TX	X		
Serial			Discretes	2,844	JAN Grade			
			TOTAL ELEMENTS	4,485	Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	66		General Purpose Computer		Automated ON line	Weight	62	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.5E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height	13	
EQUIPMENT TYPE	Amplifier, RF		Hardware Controlled			Width	8	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth	25	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	12	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band	
Tube			Hybrid	0	Redundant Channels	Gain		
Multimode Capability			Linear/Interface	62	Graceful Degrading	Peak Power Out		
Pulsed			Digital SSI/MSI	74	Degraded Modes	Average Power Out		
Traveling Wave Tube			Digital LSI & Memory	0	None	Duty Cycle		
Variable Frequency			Microprocessor	0	SCREEN CLASS			
Parity Checking			Total IC'S	0	JAN TXV	X		
Semiconductor			Tubes	2	JAN TX	X		
Serial			Discretes	526	JAN Grade			
			TOTAL ELEMENTS	528	Commercial Grade			

# EERD-2 EQUIPMENT RELIABILITY

IMPLEMENTATION			FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	68		General Purpose Computer	Automated ON line	Weight	54
PROGRAM ID			BIT Microprocessor	Automated OFF line	Volume	1.5E0
CATEGORY	Electronic Warfare		Software Controlled	Manual	Height	13
EQUIPMENT TYPE	Amplifier, RF		Hardware Controlled		Width	8
DERATING GUIDELINES	Not Reported		Automated Print Out	COOLING	Depth	25
SELF TEST CAPABILITY	Not Reported		Manual Read Panel	Ambient Air	Power	
REPLACEMENT LEVEL	Not Reported			Forced Air	Modules	12
				Liquid	Frequency Band	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Gain	
Tube			Hybrid	Redundant Channels	Peak Power Out	
Multimode Capability			Linear/Interface	Graceful Degrading	Average Power Out	
Pulsed			Digital SSI/MSI	Degraded Modes	Duty Cycle	
Traveling Wave Tube			Digital LSI & Memory	None		
Variable Frequency			Microprocessor	SCREEN CLASS		
Parity Checking			Total IC'S	JAN TXV	X	
Semiconductor			Tubes	JAN TX	X	
Serial			Discretes	JAN Grade		
			TOTAL ELEMENTS	Commercial Grade		
						</

## EQUIPMENT CHARACTERIZATION

[illegible]

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	75		General Purpose Computer		Automated ON line	Weight	1	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.1E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height	1	
EQUIPMENT TYPE	Indicator/Control		Hardware Controlled			Width	6	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air X	Depth	4	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	1	
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== INPUT RATE =====		
Automatic			Hybrid	0	FAULT TOLERANCE	Input Rate		
Keyboard Entry			Linear/Interface	0	Redundant Channels	Output Rate		
Keyboard Entry			Digital SSI/MSI	0	Graceful Degrading	# of Keys		
Meter			Digital LSI & Memory	0	Degraded Modes	# of Controls	3	
Solid State			Microprocessor	0	None	Resolution		
Parity Checking			Total IC'S	0	SCREEN CLASS	# of Lines		
Semiconductor			Tubes	0	JAN TXV	# of Characters/Line		
Serial			Discretes	0	JAN TX	Display Area		
			TOTAL ELEMENTS	0	JAN Grade	Display Diagonal		
					Commercial Grade	# of Annunciators		
						Input Volts		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	76		General Purpose Computer		Automated ON line	Weight	11	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.3E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height	5	
EQUIPMENT TYPE	Indicator/Control		Hardware Controlled			Width	6	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air X	Depth	16	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power	3.5E1	
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	11	
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== INPUT RATE =====		
Audible			Hybrid	1	FAULT TOLERANCE	Input Rate	1.0E1	
Manual			Linear/Interface	32	Redundant Channels	Output Rate		
Mechanical			Digital SSI/MSI	30	Graceful Degrading	# of Keys		
Meter			Digital LSI & Memory	2	Degraded Modes	# of Controls		
Solid State			Microprocessor	0	None	Resolution		
Parity Checking			Total IC'S	65	SCREEN CLASS	# of Lines		
Semiconductor			Tubes	1	JAN TXV	# of Characters/Line		
Serial			Discretes	104	JAN TX X	Display Area	39	
			TOTAL ELEMENTS	170	JAN Grade	Display Diagonal	4	
					Commercial Grade	# of Annunciators		
						Input Volts		



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				FAULT CONTROL =====		MAJOR PARAMETERS =====	
EQUIPMENT ID	77	General Purpose Computer		Automated ON line	Weight	2	
PROGRAM ID		BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Electronic Warfare	Software Controlled		Manual	Height	4	
EQUIPMENT TYPE	Antenna	Hardware Controlled			Width	4	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air X	Depth	7	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	1	
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band	C
Azimuth Scanning		Hybrid		Redundant Channels	Gain	3.0	
Elevation Scanning		Linear/Interface		Graceful Degrading	Effective Area		
Fixed		Digital SSI/MSI		Degraded Modes	Beam Width		
Non Directional		Digital LSI & Memory		None	Azimuth Scan Rate		
Solid State		Microprocessor			Elevation Scan Rate		
Parity Checking		Total IC'S			Scan Sector Width		
Semiconductor		Tubes		JAN TXV			
Serial		Discretes		JAN TX			
		TOTAL ELEMENTS		JAN Grade			
				Commercial Grade			
===== IMPLEMENTATION =====				FAULT CONTROL =====		MAJOR PARAMETERS =====	
EQUIPMENT ID	78	General Purpose Computer		Automated ON line	Weight	1	
PROGRAM ID		BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Electronic Warfare	Software Controlled		Manual	Height	4	
EQUIPMENT TYPE	Antenna	Hardware Controlled			Width	4	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air X	Depth	7	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	1	
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band	C
Azimuth Scanning		Hybrid		Redundant Channels	Gain	3.0	
Fixed		Linear/Interface		Graceful Degrading	Effective Area		
Helical		Digital SSI/MSI		Degraded Modes	Beam Width		
Non Directional		Digital LSI & Memory		None	Azimuth Scan Rate		
Solid State		Microprocessor			Elevation Scan Rate		
Parity Checking		Total IC'S			Scan Sector Width		
Semiconductor		Tubes		JAN TXV			
Serial		Discretes		JAN TX			
		TOTAL ELEMENTS		JAN Grade			
				Commercial Grade			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	79	General Purpose Computer		Automated ON line	Weight	1	
PROGRAM ID		BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Electronic Warfare	Software Controlled		Manual	Height	3	
EQUIPMENT TYPE	Antenna	Hardware Controlled			Width	3	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air	Depth	4	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	1	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE		Frequency Band	
Azimuth Scanning						Polarization	C
Fixed				Redundant Channels		Gain	3.0
Helical				Graceful Degrading		Effective Area	
Non Directional				Degraded Modes		Beam Width	
Solid State				None		Azimuth Scan Rate	
Parity Checking				SCREEN CLASS		Elevation Scan Rate	
Semiconductor				JAN TXV		Scan Sector Width	
Serial				JAN TX			
				JAN Grade			
				Commercial Grade			
ACTIVE ELEMENT COUNT							
Hybrid		0					
Linear/Interface		0					
Digital SSI/MSI		0					
Digital LSI & Memory		0					
Microprocessor		0					
Total IC'S		0					
Tubes		0					
Discretes		0					
TOTAL ELEMENTS		0					
===== IMPLEMENTATION =====				===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	80	General Purpose Computer		Automated ON line	Weight	1	
PROGRAM ID		BIT Microprocessor		Automated OFF line	Volume	0.1E0	
CATEGORY	Electronic Warfare	Software Controlled		Manual	Height	3	
EQUIPMENT TYPE	Antenna	Hardware Controlled			Width	3	
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air	Depth	4	
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	1	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE		Frequency Band	
Azimuth Scanning						Polarization	C
Fixed				Redundant Channels		Gain	3.0
Helical				Graceful Degrading		Effective Area	
Non Directional				Degraded Modes		Beam Width	
Solid State				None		Azimuth Scan Rate	
Parity Checking				SCREEN CLASS		Elevation Scan Rate	
Semiconductor				JAN TXV		Scan Sector Width	
Serial				JAN TX			
				JAN Grade			
				Commercial Grade			
ACTIVE ELEMENT COUNT							
Hybrid		0					
Linear/Interface		0					
Digital SSI/MSI		0					
Digital LSI & Memory		0					
Microprocessor		0					
Total IC'S		0					
Tubes		0					
Discretes		0					
TOTAL ELEMENTS		0					

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Weight	Volume	Height
81	Electronic Warfare	Power Supply	Not Reported	Automated Bit	Assembly (SRU)	AC Input	Hybrid	Redundant Channels	31	0.7E0	6
						Between 50-150 Volts	Linear/Interface	Graceful Degrading	18		11
						DC Input	Digital SSI/MSI	Degraded Modes	Power	2.2E2	15
						DC Output	Digital LSI & Memory	None	Modules		8
						Fixed Voltage Output	Microprocessor	SCREEN CLASS	# of Outputs		-5
						Over Voltage Protection	Total IC'S	JAN TXV	Voltage Out # 1		-28
						Solid State	Tubes	JAN TX	Voltage Out # 2		-100
						Switching Regulated	Discretes	JAN Grade	Current Out # 1		1350
						Under 50 Volts	TOTAL ELEMENTS	Commercial Grade	Current Out # 2		400
									Current Out # 3		40
									Percent Regulation 1		2
									Percent Regulation 2		1
									Percent Regulation 3		3
									Input Frequency		400
									Convert or Output Frequency		
EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
82	Electronic Warfare	Receiver	Not Reported	Not Reported	Not Reported	Amplitude Modulation	Hybrid	Redundant Channels	52	1.3E0	7
						Digital Data	Linear/Interface	Graceful Degrading	Weight		
						ECM-EW	Digital SSI/MSI	Degraded Modes	Volume		
						Solid State	Digital LSI & Memory	None	Height		
						Variable Frequency	Microprocessor	SCREEN CLASS	Width		18
						Over Voltage Protection	Total IC'S	JAN TXV	Depth		18
						Solid State	Tubes	JAN TX	Power		2.0E2
						Switching Regulated	Discretes	JAN Grade	Modules		48
						Under 50 Volts	TOTAL ELEMENTS	Commercial Grade	Sensitivity		
									# of Simultaneous Channels		1
									Channel Width		
									Digital Data Rate		
									# of Selectable Frequencies		
									Frequency Band		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	83 Electronic Warfare Receiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band	26 0.3E0 8 9 7 8.0E1 20 2		
DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Digital Data ECM-EW Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	84 Radar Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain	495 9.0E0 1.1E4 134		
DESIGN APPROACH/TECHNOLOGY Doppler Fire Control Traveling Wave Tube Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								



## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
87		Radar	Interconnect/Distribute	Not Reported	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level
								ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
								Hybrid	Redundant Channels	
								Linear/Interface	Graceful Degrading	
								Digital SSI/MSI	Degraded Modes	
								Digital LSI & Memory	None	
								Microprocessor	SCREEN CLASS	
								Total IC'S	JAN TXV	
								Tubes	JAN TX	
								Discretes	JAN Grade	
								TOTAL ELEMENTS	Commercial Grade	
88		Radar	Interconnect/Distribute	Not Reported	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level
								ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
								Hybrid	Redundant Channels	
								Linear/Interface	Graceful Degrading	
								Digital SSI/MSI	Degraded Modes	
								Digital LSI & Memory	None	
								Microprocessor	SCREEN CLASS	
								Total IC'S	JAN TXV	
								Tubes	JAN TX	
								Discretes	JAN Grade	
								TOTAL ELEMENTS	Commercial Grade	

# EERD-2 EQUIPMENT RELIABILITY

IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	COOLING	Weight	Volume	Height	Width
89	89	Not Reported	Hybrid	0	0	0	0	10	1	1	1
CATEGORY	Category	Fire Control	Linear/Interface	0	0	0	0	10	1	1	1
EQUIPMENT TYPE	Interconnect/Distribute	Traveling Wave Tube	Digital SSI/MSI	0	0	0	0	10	1	1	1
DERATING GUIDELINES	Not Reported	Over Voltage Protection	Digital LSI & Memory	0	0	0	0	10	1	1	1
SELF TEST CAPABILITY	Not Reported	Variable Frequency	Microprocessor	0	0	0	0	10	1	1	1
REPLACEMENT LEVEL	Not Reported	Over Voltage Protection	Total IC'S	0	0	0	0	10	1	1	1
		Solid State	Tubes	0	0	0	0	10	1	1	1
		Switching Regulated	Discretes	0	0	0	0	10	1	1	1
		Under 50 Volts	TOTAL ELEMENTS	0	0	0	0	10	1	1	1
IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	COOLING	Weight	Volume	Height	Width
90	90	Not Reported	Hybrid	0	0	0	0	10	1	1	1
CATEGORY	Category	Fire Control	Linear/Interface	0	0	0	0	10	1	1	1
EQUIPMENT TYPE	Interconnect/Distribute	Traveling Wave Tube	Digital SSI/MSI	0	0	0	0	10	1	1	1
DERATING GUIDELINES	Not Reported	Over Voltage Protection	Digital LSI & Memory	0	0	0	0	10	1	1	1
SELF TEST CAPABILITY	Not Reported	Variable Frequency	Microprocessor	0	0	0	0	10	1	1	1
REPLACEMENT LEVEL	Not Reported	Over Voltage Protection	Total IC'S	0	0	0	0	10	1	1	1
		Solid State	Tubes	0	0	0	0	10	1	1	1
		Switching Regulated	Discretes	0	0	0	0	10	1	1	1
		Under 50 Volts	TOTAL ELEMENTS	0	0	0	0	10	1	1	1

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	91 Radar Antenna Not Reported Automated Bit Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	107 2.1E1 28 36 36 4.0E2 3		
DESIGN APPROACH/TECHNOLOGY Not Reported Fire Control Traveling Wave Tube Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	92 Radar Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	3 0.7E0 7 5 4 1		
DESIGN APPROACH/TECHNOLOGY Not Reported Fire Control Traveling Wave Tube Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	41 1.2E0 7 16 19  42
93 Radar Signal/Data Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Not Reported	Hybrid	9	FAULT TOLERANCE	
		Fire Control	Linear/Interface	32	Redundant Channels	
		Traveling Wave Tube	Digital SSI/MSI	4,258	Graceful Degradation	
		Over Voltage Protection	Digital LSI & Memory	116	Degraded Modes	
		Variable Frequency	Microprocessor	0	None	
		Over Voltage Protection	Total IC'S	4,415	SCREEN CLASS	
		Solid State	Tubes	0	JAN TXV	X
		Switching Regulated	Discretes	159	JAN TX	X
		Under 50 Volts	TOTAL ELEMENTS	4,574	JAN Grade	X
					Commercial Grade	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	40 1.0E0 7 16 17  49
94 Radar Signal/Data Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Not Reported	Hybrid	26	FAULT TOLERANCE	
		Fire Control	Linear/Interface	369	Redundant Channels	
		Traveling Wave Tube	Digital SSI/MSI	2,011	Graceful Degradation	
		Over Voltage Protection	Digital LSI & Memory	6	Degraded Modes	
		Variable Frequency	Microprocessor	0	None	
		Over Voltage Protection	Total IC'S	2,412	SCREEN CLASS	
		Solid State	Tubes	0	JAN TXV	X
		Switching Regulated	Discretes	590	JAN TX	X
		Under 50 Volts	TOTAL ELEMENTS	3,002	JAN Grade	X
					Commercial Grade	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	95 Radar Signal/Data Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	68 12 33 0 0 113 0 128 241	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	26 0.9E0 10 11 13  6	
DESIGN APPROACH/TECHNOLOGY Not Reported Fire Control Traveling Wave Tube Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	96 Radar Frequency/Timing Gen. Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	10 6 0 0 0 16 0 74 90	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Reference Frequency Frequency Drift Output Frequency Output Voltage Output Impedance	26 1.0E0 7 23 11  5	
DESIGN APPROACH/TECHNOLOGY Not Reported Fire Control Traveling Wave Tube Over Voltage Protection Variable Frequency Over Voltage Protection Solid State Switching Regulated Under 50 Volts								

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	97	General Purpose Computer	Automated ON line	Weight	41			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	1.1E0			
CATEGORY	Radar	Software Controlled	Manual	Height	10			
EQUIPMENT TYPE	Power Supply	Hardware Controlled	COOLING	Width	11			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	16			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	5			
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT	Redundant Channels	Voltage Out # 1				
Not Reported		Hybrid	Graceful Degradation	Voltage Out # 2				
Fire Control		Linear/Interface	Degraded Modes	Voltage Out # 3				
Traveling Wave Tube		Digital SSI/MSI	None	Current Out # 1				
Over Voltage Protection		Digital LSI & Memory	SCREEN CLASS	Current Out # 2				
Variable Frequency		Microprocessor		Current Out # 3				
Over Voltage Protection		Total IC'S	JAN TXV	Percent Regulation 1				
Solid State		Tubes	JAN TX	Percent Regulation 2				
Switching Regulated		Discretes	JAN Grade	Percent Regulation 3				
Under 50 Volts		TOTAL ELEMENTS	Commercial Grade	Input Frequency				
				Convert or Output				
				Frequency				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	98	General Purpose Computer	Automated ON line	Weight	26			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	0.7E0			
CATEGORY	Radar	Software Controlled	Manual	Height	7			
EQUIPMENT TYPE	Receiver	Hardware Controlled	COOLING	Width	16			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	11			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	8			
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT	Redundant Channels	# of Simultaneous				
Radar		Hybrid	Graceful Degradation	Channels				
Fire Control		Linear/Interface	Degraded Modes	Channel Width				
Traveling Wave Tube		Digital SSI/MSI	None	Digital Data Rate				
Over Voltage Protection		Digital LSI & Memory	SCREEN CLASS	# of Selectable				
Variable Frequency		Microprocessor		Frequencies				
Over Voltage Protection		Total IC'S	JAN TXV	Frequency Band				
Solid State		Tubes	JAN TX					
Switching Regulated		Discretes	JAN Grade					
Under 50 Volts		TOTAL ELEMENTS	Commercial Grade					

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	99	General Purpose Computer	Automated ON line	Weight	173			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	3.1E0			
CATEGORY	Radar	Software Controlled	Manual	Height	10			
EQUIPMENT TYPE	Transmitter	Hardware Controlled		Width	31			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	17			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	9			
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====					
Radar		ACTIVE ELEMENT COUNT	Redundant Channels	Frequency Band				
Fire Control		Hybrid	Graceful Degrading	Peak Power Out				
Traveling Wave Tube		Linear/Interface	Degraded Modes	Average Power Out				
Over Voltage Protection		Digital SSI/MSI	None	# of Simultaneous Channels				
Variable Frequency		Digital LSI & Memory		Channel Width				
Over Voltage Protection		Microprocessor	SCREEN CLASS	Pulse Repetition				
Solid State		Total IC'S	JAN TXV	Frequency				
Switching Regulated		Tubes	JAN TX	Digital Data Rate				
Under 50 Volts		Discretes	JAN Grade	# of Selectable				
			Commercial Grade	Frequency Stability				
				Duty Cycle				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	100	General Purpose Computer	Automated ON line	Weight	495			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	9.0E0			
CATEGORY	Radar	Software Controlled	Manual	Height				
EQUIPMENT TYPE		Hardware Controlled		Width				
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth				
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power	1.1E4			
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	134			
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====					
Doppler		ACTIVE ELEMENT COUNT	Redundant Channels	Frequency Band				
Fire Control		Hybrid	Graceful Degrading	Detection Range				
Traveling Wave Tube		Linear/Interface	Degraded Modes	Peak RF Power				
Over Voltage Protection		Digital SSI/MSI	None	Average RF Power				
Variable Frequency		Digital LSI & Memory		PRF				
Over Voltage Protection		Microprocessor	SCREEN CLASS	AZ Coverage/Angle				
Solid State		Total IC'S	JAN TXV	Scan Rate				
Switching Regulated		Tubes	JAN TX	Polarization				
Under 50 Volts		Discretes	JAN Grade	Beam Width				
			Commercial Grade	Elev. Coverage/Angle				
				Target Size				
				Antenna Gain				

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	ACTIVE ELEMENT COUNT	FAULT CONTROL	MAJOR PARAMETERS
101		Radar	Antenna	Not Reported	Automated Bit	Assembly (SRU)	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	1 0 3 0 0 4 0 3 7	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid  Redundant Channels Graceful Degrading Degraded Modes None  JAN TXV JAN TX JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width
102		Radar	Indicator/Control	Not Reported	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	0 2 0 0 0 2 0 2 4	Automated ON line Automated OFF line Manual  Ambient Air Forced Air Liquid  Redundant Channels Graceful Degrading Degraded Modes None  JAN TXV JAN TX JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	103		General Purpose Computer		Automated ON line	Weight	41	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.2E0	
CATEGORY	Radar		Software Controlled		Manual	Height	7	
EQUIPMENT TYPE	Signal/Data		Hardware Controlled			Width	16	
DERATING GUIDELINES	Not Reported		Automated Print Out			Depth	19	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Power		
REPLACEMENT LEVEL	Not Reported					Modules	42	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			Clock Frequency		
Not Reported			Hybrid	9	FAULT TOLERANCE	Word Length		
Fire Control			Linear/Interface	32	Redundant Channels	Memory Size		
Traveling Wave Tube			Digital SSI/MSI	4,258	Graceful Degradation	Interrupt Levels		
Over Voltage Protection			Digital LSI & Memory	116	Degraded Modes	Memory I/O Rate		
Variable Frequency			Microprocessor	0	None	# of Busses		
Over Voltage Protection			Total IC'S	4,415	SCREEN CLASS	# of Registers		
Solid State			Tubes	0	JAN TXV	# of Accumulators		
Switching Regulated			Discretes	159	JAN TX	# of Input Ports		
Under 50 Volts			TOTAL ELEMENTS	4,574	JAN Grade	# of Output Ports		
					Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	104		General Purpose Computer		Automated ON line	Weight	40	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.0E0	
CATEGORY	Radar		Software Controlled		Manual	Height	7	
EQUIPMENT TYPE	Signal/Data		Hardware Controlled			Width	16	
DERATING GUIDELINES	Not Reported		Automated Print Out			Depth	17	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Power		
REPLACEMENT LEVEL	Not Reported					Modules	49	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			Clock Frequency		
Not Reported			Hybrid	26	FAULT TOLERANCE	Word Length		
Fire Control			Linear/Interface	369	Redundant Channels	Memory Size		
Traveling Wave Tube			Digital SSI/MSI	2,011	Graceful Degradation	Interrupt Levels		
Over Voltage Protection			Digital LSI & Memory	6	Degraded Modes	Memory I/O Rate		
Variable Frequency			Microprocessor	0	None	# of Busses		
Over Voltage Protection			Total IC'S	2,412	SCREEN CLASS	# of Registers		
Solid State			Tubes	0	JAN TXV	# of Accumulators		
Switching Regulated			Discretes	590	JAN TX	# of Input Ports		
Under 50 Volts			TOTAL ELEMENTS	3,002	JAN Grade	# of Output Ports		
					Commercial Grade			

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON Line	Weight	26		
CATEGORY			BIT Microprocessor	Automated OFF Line	Volume	0.9E0		
EQUIPMENT TYPE			Software Controlled	Manual	Height	10		
DERATING GUIDELINES			Hardware Controlled	COOLING	Width	11		
SELF TEST CAPABILITY			Automated Print Out	Ambient Air	Depth	13		
REPLACEMENT LEVEL			Manual Read Panel	Forced Air	Power			
				Liquid	Modules	6		
===== IMPLEMENTATION =====			ACTIVE ELEMENT COUNT	===== FAULT TOLERANCE =====				
Not Reported			Hybrid	Redundant Channels	Word Length			
Fire Control			Linear/Interface	Graceful Degrading	Memory Size			
Traveling Wave Tube			Digital SSI/MSI	Degraded Modes	Interrupt Levels			
Over Voltage Protection			Digital LSI & Memory	None	Memory I/O Rate			
Variable Frequency			Microprocessor	SCREEN CLASS	# of Busses			
Over Voltage Protection			Total IC'S	JAN TXV	# of Registers			
Solid State			Tubes	JAN TX	# of Accumulators			
Switching Regulated			Discretes	JAN Grade	# of Input Ports			
Under 50 Volts			TOTAL ELEMENTS	Commercial Grade	# of Output Ports			
===== IMPLEMENTATION =====			ACTIVE ELEMENT COUNT	===== FAULT TOLERANCE =====				
Not Reported			Hybrid	Redundant Channels	Weight	26		
Fire Control			Linear/Interface	Graceful Degrading	Volume	1.0E0		
Traveling Wave Tube			Digital SSI/MSI	Degraded Modes	Height	7		
Over Voltage Protection			Digital LSI & Memory	None	Width	23		
Variable Frequency			Microprocessor	SCREEN CLASS	Depth	11		
Over Voltage Protection			Total IC'S	JAN TXV	Power			
Solid State			Tubes	JAN TX	Modules	5		
Switching Regulated			Discretes	JAN Grade	Referency Frequency			
Under 50 Volts			TOTAL ELEMENTS	Commercial Grade	Frequency Drift			
					Output Frequency			
					Output Voltage			
					Output Impedance			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	107 Radar Power Supply Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules # of Outputs Voltage Out # 1 Voltage Out # 2 Voltage Out # 3 Current Out # 1 Current Out # 2 Current Out # 3 Percent Regulation 1 Percent Regulation 2 Percent Regulation 3 Input Frequency Convert or Output Frequency	41 1.1E0 10 11 16 5		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Not Reported		Hybrid	25	Redundant Channels				
Fire Control		Linear/Interface	26	Graceful Degrading				
Traveling Wave Tube		Digital SSI/MSI	5	Degraded Modes				
Over Voltage Protection		Digital LSI & Memory	0	None				
Variable Frequency		Microprocessor	0	SCREEN CLASS				
Over Voltage Protection		Total IC'S	56	JAN TXV				
Solid State		Tubes	0	JAN TX				
Switching Regulated		Discretes	151	JAN Grade	X			
Under 50 Volts		TOTAL ELEMENTS	207	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	108 Radar Receiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band	26 0.7E0 7 16 11 8		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Radar		Hybrid	0	Redundant Channels				
Fire Control		Linear/Interface	7	Graceful Degrading				
Traveling Wave Tube		Digital SSI/MSI	2	Degraded Modes				
Over Voltage Protection		Digital LSI & Memory	0	None				
Variable Frequency		Microprocessor	0	SCREEN CLASS				
Over Voltage Protection		Total IC'S	9	JAN TXV				
Solid State		Tubes	0	JAN TX				
Switching Regulated		Discretes	96	JAN Grade	X			
Under 50 Volts		TOTAL ELEMENTS	105	Commercial Grade				



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	109	General Purpose Computer	Automated ON line	Weight	173			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	3.1E0			
CATEGORY	Radar	Software Controlled	Manual	Height	10			
EQUIPMENT TYPE	Transmitter	Hardware Controlled	COOLING	Width	31			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	17			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	9			
===== DESIGN APPROACH/TECHNOLOGY =====			FAULT TOLERANCE	Frequency Band				
Radar		ACTIVE ELEMENT COUNT	Redundant Channels	Peak Power Out				
Fire Control		Hybrid	Graceful Degrading	Average Power Out				
Traveling Wave Tube		Linear/Interface	Degraded Modes	# of Simultaneous Channels				
Over Voltage Protection		Digital SSI/MSI	None	Channel Width				
Variable Frequency		Digital LSI & Memory	SCREEN CLASS	Pulse Repetition				
Over Voltage Protection		Microprocessor		Frequency				
Solid State		Total IC'S	JAN TXV	Digital Data Rate				
Switching Regulated		Tubes	JAN TX	# of Selectable				
Under 50 Volts		Discretes	JAN Grade	Frequency Stability				
		TOTAL ELEMENTS	Commercial Grade	Duty Cycle				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====	===== MAJOR PARAMETERS =====				
EQUIPMENT ID	110	General Purpose Computer	Automated ON line	Weight	18			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	0.2E0			
CATEGORY	Communications	Software Controlled	Manual	Height	8			
EQUIPMENT TYPE	Signal/Data	Hardware Controlled	COOLING	Width	5			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	18			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	7			
===== DESIGN APPROACH/TECHNOLOGY =====			FAULT TOLERANCE	Clock Frequency	1.0E6			
Digital		ACTIVE ELEMENT COUNT	Redundant Channels	Word Length	26			
Internal Semiconductor Memory		Hybrid	Graceful Degrading	Memory Size				
Serial		Linear/Interface	Degraded Modes	Interrupt Levels				
Synchronous		Digital SSI/MSI	None	Memory I/O Rate				
Variable Frequency		Digital LSI & Memory	SCREEN CLASS	# of Busses				
Over Voltage Protection		Microprocessor		# of Registers				
Solid State		Total IC'S	JAN TXV	# of Accumulators				
Switching Regulated		Tubes	JAN TX	# of Input Ports				
Under 50 Volts		Discretes	JAN Grade	# of Output Ports				
		TOTAL ELEMENTS	Commercial Grade					

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	111 Communications Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	10 23 41 0 0 74 1 159 234	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	18 0.4E0 8 5 18 Power 6 Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	
===== DESIGN APPROACH/TECHNOLOGY =====								
Fixed Frequency Radar Solid State Transponder Tube Over Voltage Protection Solid State Switching Regulated Under 50 Volts								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	112 Communications Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	19 25 24 0 0 68 0 183 251	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	14 0.2E0 6 6 11 6.4E1 16 Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	
===== DESIGN APPROACH/TECHNOLOGY =====								
Fixed Frequency Pulse Code Modulated Radar Solid State Transponder Over Voltage Protection Solid State Switching Regulated Under 50 Volts								

EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
113	113	Communications	Active	General Purpose Computer	Automated ON line	Weight Volume Height Width Depth Power Modules Insertion Loss
		Filter	Band Pass	BIT Microprocessor	Automated OFF line	0.1E0
		Not Reported	Signal	Software Controlled	Manual	2
		Not Reported	Solid State	Hardware Controlled	COOLING	3
		Not Reported	Transponder	Automated Print Out	Ambient Air	2
			Over Voltage Protection	Manual Read Panel	Forced Air	Power
			Solid State		Liquid	Modules
			Switching Regulated			Insertion Loss
			Under 50 Volts			Max Attenuation
				ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Pass Band Width
				Hybrid	Redundant Channels	Attenuate Band Width
				Linear/Interface	Graceful Degrading	Phase Shift
				Digital SSI/MSI	Degraded Modes	Time Delay
				Digital LSI & Memory	None	Frequency Band
				Microprocessor	SCREEN CLASS	
				Total IC's	JAN TXV	
				Tubes	JAN TX	
				Discretes	JAN Grade X	
				TOTAL ELEMENTS	Commercial Grade	
114	114	Communications	Amplitude Modulation	General Purpose Computer	Automated ON line	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels
		Receiver	Over Voltage Protection	BIT Microprocessor	Automated OFF line	0.2E0
		Not Reported	Secure	Software Controlled	Manual	7
		Not Reported	Voice	Hardware Controlled	COOLING	6
		Not Reported	Transponder	Automated Print Out	Ambient Air X	10
			Over Voltage Protection	Manual Read Panel	Forced Air	2.7E1
			Solid State		Liquid	6
			Switching Regulated			
			Under 50 Volts			
				ACTIVE ELEMENT COUNT	FAULT TOLERANCE	# of Selectable Frequencies
				Hybrid	Redundant Channels	Frequency Band UHF
				Linear/Interface	Graceful Degrading	
				Digital SSI/MSI	Degraded Modes	Channel Width
				Digital LSI & Memory	None	Digital Data Rate
				Microprocessor	SCREEN CLASS	
				Total IC's	JAN TXV X	
				Tubes	JAN TX X	
				Discretes	JAN Grade	
				TOTAL ELEMENTS	Commercial Grade	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	115 Communications Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	29 0.5E0 7 9 15 2.3E2 10 UHF 3.7E2 20 2000 6.0E0		
=====								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	116 Computer Not Reported Semi Automated Bit Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	16 0.3E0 7 6 13 7.0E1 1 1		

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	119 Guidance/Navigation Inertial Reference Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Position Accuracy Velocity Accuracy Heading Accuracy Range Drift Rate # of Gimbals # of Gyros # of Accelerometers	13 0.2E0 7 7 9 1 Position Accuracy Velocity Accuracy Heading Accuracy Range Drift Rate # of Gimbals # of Gyros # of Accelerometers					
DESIGN APPROACH/TECHNOLOGY Gimbaled Magnetic Pulse Serial Voice Over Voltage Protection Solid State Switching Regulated Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade X Commercial Grade							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	120 Guidance/Navigation Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	1 0.1E0 2 6 2 1 Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts					
DESIGN APPROACH/TECHNOLOGY Flat Panel Graphic Manual Meter Voice Over Voltage Protection Solid State Switching Regulated Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade							

## EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
121		Guidance/Navigation	High Reliability	Automated Bit	Unit (LRU/SRU)		Dead Reckoning Geographic Position Gimbaled Inertial Voice Over Voltage Protection Solid State Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air X Forced Air X Liquid  FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes X None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band
								ACTIVE ELEMENT COUNT		
								Hybrid		
								Linear/Interface		
								Digital SSI/MSI		
								Digital LSI & Memory		
								Microprocessor		
								Total IC'S		
								Tubes		
								Discretes		
								TOTAL ELEMENTS		
122		Guidance/Navigation	Inertial Reference	High Reliability	Automated Bit	Unit (LRU/SRU)	Digital Electrically Driven Gyro Electrolytic Accelerometer Gimbaled Voice Over Voltage Protection Solid State Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air Forced Air X Liquid  FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes X None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Position Accuracy Velocity Accuracy Heading Accuracy Range Drift Rate # of Gimbals # of Gyros # of Accelerometers
								ACTIVE ELEMENT COUNT		
								Hybrid		
								Linear/Interface		
								Digital SSI/MSI		
								Digital LSI & Memory		
								Microprocessor		
								Total IC'S		
								Tubes		
								Discretes		
								TOTAL ELEMENTS		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	123		Automated ON line	Reconfiguration	Weight	8
PROGRAM ID			Automated OFF line		Volume	0.1E0
CATEGORY	Guidance/Navigation		Manual		Height	7
EQUIPMENT TYPE	Indicator/Control	X		COOLING	Width	5
DERATING GUIDELINES	High Reliability	X	Ambient Air	X	Depth	7
SELF TEST CAPABILITY	Automated Bit	X	Forced Air		Power	5.0E1
REPLACEMENT LEVEL	Unit (LRU/SRU)		Liquid		Modules	6
===== DESIGN APPROACH/TECHNOLOGY =====		ACTIVE ELEMENT COUNT	===== FAULT TOLERANCE =====		Input Rate	
Alphanumeric		Hybrid	Redundant Channels		Output Rate	
Automatic		Linear/Interface	Graceful Degrading		# of Keys	19
Electromechanical		Digital SSI/MSI	Degraded Modes	X	# of Controls	3
Flat Panel		Digital LSI & Memory	None		Resolution	
Internal Semiconductor Memory		Microprocessor	SCREEN CLASS		# of Lines	
Manual		Total IC'S	JAN TXV		# of Characters/Line	
Solid State		Tubes	JAN TX	X	Display Area	
Switching Regulated		Discretes	JAN Grade		Display Diagonal	
Under 50 Volts		TOTAL ELEMENTS	Commercial Grade		# of Annunciators	
					Input Volts	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	124		Automated ON line	Fault Isolation	Weight	40
PROGRAM ID			Automated OFF line	Fault Isolation	Volume	0.8E0
CATEGORY	Guidance/Navigation		Manual		Height	
EQUIPMENT TYPE				COOLING	Width	
DERATING GUIDELINES	Intermediate Reliability		Ambient Air	X	Depth	
SELF TEST CAPABILITY	None		Forced Air		Power	2.1E2
REPLACEMENT LEVEL	Unit (LRU/SRU)		Liquid		Modules	
===== DESIGN APPROACH/TECHNOLOGY =====		ACTIVE ELEMENT COUNT	===== FAULT TOLERANCE =====		Position Accuracy	
Autopilot		Hybrid	Redundant Channels	X	Range	
Dead Reckoning		Linear/Interface	Graceful Degrading		Way Points	
Gimballed		Digital SSI/MSI	Degraded Modes		Destinations	
Inertial		Digital LSI & Memory	None		Velocity Accuracy	
Internal Semiconductor Memory		Microprocessor	SCREEN CLASS		Height Accuracy	
Manual		Total IC'S	JAN TXV		Heading Accuracy	
Solid State		Tubes	JAN TX		Frequency Band	
Switching Regulated		Discretes	JAN Grade	X		
Under 50 Volts		TOTAL ELEMENTS	Commercial Grade			



===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Fault Detection		Weight		12	
EQUIPMENT ID	125	General Purpose Computer	18	Automated OFF line	Fault Isolation	Volume	0.4E0				
PROGRAM ID		BIT Microprocessor	60	Manual	Fault Isolation	Height	6				
CATEGORY	Guidance/Navigation	Software Controlled	58			Width	6				
EQUIPMENT TYPE	Computer (CPU)	Hardware Controlled	0			Depth	17				
DERATING GUIDELINES	Not Reported	Automated Print Out	0			Power	1.0E2				
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	0			Modules	14				
REPLACEMENT LEVEL	Unit (LRU/SRU)		0			Clock Frequency					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Word Length		Memory Size		Interrupt Levels	
Analog		Hybrid	136	Redundant Channels	X						
Dedicated		Linear/Interface	60	Graceful Degradation							
Gimbaled		Digital SSI/MSI	58	Degraded Modes							
Inertial		Digital LSI & Memory	0	None							
Internal Semiconductor Memory		Microprocessor	0	SCREEN CLASS							
Manual		Total IC's	136	JAN TXV							
Solid State		Tubes	0	JAN TX							
Switching Regulated		Discretes	144	JAN Grade	X						
Under 50 Volts		TOTAL ELEMENTS	280	Commercial Grade							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Fault Detection		Weight		12	
EQUIPMENT ID	126	General Purpose Computer	35	Automated OFF line	Fault Isolation	Volume	0.4E0				
PROGRAM ID		BIT Microprocessor	50	Manual	Fault Isolation	Height	6				
CATEGORY	Guidance/Navigation	Software Controlled	64			Width	6				
EQUIPMENT TYPE	Computer (CPU)	Hardware Controlled	0			Depth	17				
DERATING GUIDELINES	Not Reported	Automated Print Out	0			Power	8.6E1				
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	0			Modules	17				
REPLACEMENT LEVEL	Unit (LRU/SRU)		0			Clock Frequency					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Word Length		Memory Size		Interrupt Levels	
Analog		Hybrid	149	Redundant Channels	X						
Dedicated		Linear/Interface	50	Graceful Degradation							
Gimbaled		Digital SSI/MSI	64	Degraded Modes							
Inertial		Digital LSI & Memory	0	None							
Internal Semiconductor Memory		Microprocessor	0	SCREEN CLASS							
Manual		Total IC's	149	JAN TXV							
Solid State		Tubes	0	JAN TX							
Switching Regulated		Discretes	178	JAN Grade	X						
Under 50 Volts		TOTAL ELEMENTS	327	Commercial Grade	X						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	127	General Purpose Computer		Automated ON line	Automated OFF line	Fault Detection	Weight	3			
PROGRAM ID		BIT Microprocessor		Manual	Manual	Fault Detection	Volume	0.1E0			
CATEGORY	Guidance/Navigation	Software Controlled						Height	3		
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled						Width	6		
DERATING GUIDELINES	Intermediate Reliability	Automated Print Out						Depth	6		
SELF TEST CAPABILITY	None	Manual Read Panel						Power			
REPLACEMENT LEVEL	Piece Part							Modules	1		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE				Input Rate			
Electromechanical		Hybrid		Redundant Channels				Output Rate			
Manual		Linear/Interface		Graceful Degradation				# of Keys			
Gimbaled		Digital SSI/MSI		Degraded Modes				# of Controls	6		
Inertial		Digital LSI & Memory		None				Resolution			
Internal Semiconductor Memory		Microprocessor		SCREEN CLASS				# of Lines			
Manual		Total IC'S		JAN TXV				# of Characters/Line			
Solid State		Tubes		JAN TX				Display Area			
Switching Regulated		Discretes		JAN Grade				Display Diagonal			
Under 50 Volts		TOTAL ELEMENTS		Commercial Grade				# of Annunciators			
		3						Input Volts			
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	128	General Purpose Computer		Automated ON line	Automated OFF line	Fault Detection	Weight	2			
PROGRAM ID		BIT Microprocessor		Manual	Manual	Fault Detection	Volume	0.1E0			
CATEGORY	Guidance/Navigation	Software Controlled						Height	2		
EQUIPMENT TYPE	Transducer	Hardware Controlled						Width	4		
DERATING GUIDELINES	Intermediate Reliability	Automated Print Out						Depth	4		
SELF TEST CAPABILITY	Manual Bite	Manual Read Panel						Power			
REPLACEMENT LEVEL	Assembly (SRU)							Modules	1		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE				Voltage Output			
Acceleration		Hybrid		Redundant Channels				Current Output			
Current Output		Linear/Interface		Graceful Degradation				Power Output			
Gimbaled		Digital SSI/MSI		Degraded Modes				Frequency Output			
Inertial		Digital LSI & Memory		None				Pressure Output			
Internal Semiconductor Memory		Microprocessor		SCREEN CLASS				Sound Level			
Manual		Total IC'S		JAN TXV							
Solid State		Tubes		JAN TX							
Switching Regulated		Discretes		JAN Grade							
Under 50 Volts		TOTAL ELEMENTS		Commercial Grade							
		9		X							

# BERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	129 Guidance/Navigation Inertial Reference Not Reported Manual Bite Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Cooling Ambient Air Forced Air Liquid	Fault Detection Fault Detection	Weight Volume Height Width Depth Power Modules Position Accuracy Velocity Accuracy Heading Accuracy Range Drift Rate # of Gimbals # of Gyros # of Accelerometers	7 0.1E0 5 4 7 1	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Strapdown		Hybrid	0	Redundant Channels	X			
Current Output		Linear/Interface	0	Graceful Degrading				
Gimballed		Digital SSI/MSI	0	Degraded Modes				
Inertial		Digital LSI & Memory	0	None				
Internal Semiconductor Memory		Microprocessor	0	SCREEN CLASS			2	
Manual		Total IC'S	0	JAN TXV				
Solid State		Tubes	0	JAN TX				
Switching Regulated		Discretes	1	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	1	Commercial Grade	X			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	130 Guidance/Navigation Indicator/Control Intermediate Reliability None Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Cooling Ambient Air Forced Air Liquid	Fault Detection Fault Detection	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	3 0.1E0 6 2 4 1	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Electromechanical		Hybrid	0	Redundant Channels				
Manual		Linear/Interface	4	Graceful Degrading			1	
Servo		Digital SSI/MSI	0	Degraded Modes				
Inertial		Digital LSI & Memory	0	None				
Internal Semiconductor Memory		Microprocessor	0	SCREEN CLASS				
Manual		Total IC'S	4	JAN TXV				
Solid State		Tubes	0	JAN TX				
Switching Regulated		Discretes	0	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	4	Commercial Grade	X			

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID 131			EQUIPMENT ID 132		
PROGRAM ID			PROGRAM ID		
CATEGORY			CATEGORY		
EQUIPMENT TYPE			EQUIPMENT TYPE		
DERATING GUIDELINES			DERATING GUIDELINES		
SELF TEST CAPABILITY			SELF TEST CAPABILITY		
REPLACEMENT LEVEL			REPLACEMENT LEVEL		
<b>DESIGN APPROACH/TECHNOLOGY</b> Pressure Manual Servo Inertial Internal Semiconductor Memory Manual Solid State Switching Regulated Under 50 Volts			<b>DESIGN APPROACH/TECHNOLOGY</b> Alphanumeric CRT Graphic Head Up Projection Manual Solid State Switching Regulated Under 50 Volts		
<b>IMPLEMENTATION</b> General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel			<b>IMPLEMENTATION</b> General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel		
<b>ACTIVE ELEMENT COUNT</b> Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS			<b>ACTIVE ELEMENT COUNT</b> Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS		
<b>FAULT CONTROL</b> Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Fault Detection Fault Detection Fault Detection COOLING X Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X			<b>FAULT CONTROL</b> Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Fault Detection Fault Detection Fault Isolation COOLING X X X Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X		
<b>MAJOR PARAMETERS</b> Weight Volume Height Width Depth Power Modules Voltage Output Current Output Power Output Frequency Output Pressure Output Sound Level			<b>MAJOR PARAMETERS</b> Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area # of Characters/Line # of Controls Accuracy		

## EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	133  Controls/Displays Signal/Data Not Reported Automated Bit Equipment	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled X Automated Print Out Manual Read Panel X	Automated ON line Fault Detection Automated OFF line Fault Detection Manual Fault Isolation  Cooling  Ambient Air Forced Air X Liquid  Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None X Screen Class JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight 16 Volume 0.4E0 Height 6 Width 8 Depth 15 Power 2.0E2 Modules 16 Clock Frequency Word Length 20 Memory Size 2.0E3 Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports 4 # of Output Ports 4
PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	134  Controls/Displays Indicator/Control Not Reported Automated Bit Equipment	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled X Automated Print Out Manual Read Panel X	Automated ON line Fault Detection Automated OFF line Fault Detection Manual Fault Isolation  Cooling  Ambient Air Forced Air X Liquid  Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None X Screen Class JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight 46 Volume 0.7E0 Height 8 Width 7 Depth 21 Power 1.2E2 Modules 9 Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area 38 Display Diagonal # of Annunciators Input Volts 115
PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	135  Controls/Displays Signal/Data Not Reported Automated Bit Equipment	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled X Automated Print Out Manual Read Panel X	Automated ON line Fault Detection Automated OFF line Fault Detection Manual Fault Isolation  Cooling  Ambient Air Forced Air X Liquid  Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None X Screen Class JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight 16 Volume 0.4E0 Height 6 Width 8 Depth 15 Power 2.0E2 Modules 16 Clock Frequency Word Length 20 Memory Size 2.0E3 Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports 4 # of Output Ports 4

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	135 Guidance/Navigation Memory Not Reported None Equipment	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None X SCREEN CLASS JAN TXV JAN TX JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Retrieval Time Word Length Memory Size I/O Rate	4 0.1E0 9 1 8 4 4		
DESIGN APPROACH/TECHNOLOGY Magnetic Disk Non Volatile Parallel Photographic Projection Visual Solid State Switching Regulated Under 50 Volts								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	136 Controls/Displays Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area # of Characters/Line # of Controls Accuracy	49 1.2E0 53 2.4E2 53		
DESIGN APPROACH/TECHNOLOGY Alphanumeric Control Display Electromechanical Manual Meter Optoelectronic Switching Regulated Under 50 Volts								

# EEED-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	137 Controls/Displays Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 19 47 0 0 66 0 279 345	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	11 0.4E0 9 7 10 7 7	
DESIGN APPROACH/TECHNOLOGY Alphanumeric Electromechanical Manual Meter Passive Visual Optoelectronic Switching Regulated Under 50 Volts			FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade X Commercial Grade					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	138 Controls/Displays Converter Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	2 109 294 8 0 413 0 1,783 2,196	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air X Liquid	Weight Volume Height Width Depth Power Modules # of Bits Clock Frequency Freq. Band Input Freq. Band Output	37 1.0E0 6 30 10 46 46	
DESIGN APPROACH/TECHNOLOGY A-D Converter Audio/Voice Digital Data Direction Finder Monolithic Radio Solid State Switching Regulated Under 50 Volts			FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade X Commercial Grade					

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	139 Communications Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	11 0.3E0    1.6E1 10 UHF
DESIGN APPROACH/TECHNOLOGY	A-D Converter Audio/Voice Digital Data Direction Finder Monolithic Radio Solid State Switching Regulated Under 50 Volts	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	11 0 0 0 0 11 0 0 11	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	140 Test Equipment Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Frequency Accuracy # of Tests	3210 2.3E2 75 105 50
DESIGN APPROACH/TECHNOLOGY	Dedicated General Purpose Manual Direction Finder Monolithic Radio Solid State Switching Regulated Under 50 Volts	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 99 72 0 0 171 0 946 1,117	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade		



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EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	ACTIVE ELEMENT COUNT	FAULT CONTROL	MAJOR PARAMETERS
143		Test Equipment						General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	1 21 27 0 0 49 0 79 128	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid  Redundant Channels Graceful Degrading Degraded Modes None  JAN TXV JAN TX JAN Grade X Commercial Grade X	Weight 6 Volume 0.1E0 Height Width Depth Power 2.0E1 Modules 6 Frequency Band Frequency Accuracy # of Tests 8
144		Test Equipment						General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	0 21 27 0 0 48 0 79 127	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid  Redundant Channels Graceful Degrading Degraded Modes None  JAN TXV JAN TX JAN Grade X Commercial Grade	Weight 5 Volume 0.1E0 Height 5 Width 7 Depth 7 Power Modules 5 Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators 9 Input Volts

# EERD-2 EQUIPMENT RELIABILITY

IMPLEMENTATION				FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	145 Test Equipment Transducer Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Voltage Output Current Output Power Output Frequency Output Pressure Output Sound Level	1 0.1E0 2 2 3 1
DESIGN APPROACH/TECHNOLOGY Acceleration Voltage Output Guidance/Navigation Manual Radar Radio Solid State Switching Regulated Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X			
IMPLEMENTATION				FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	146 Communications Amplifier, RF Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Gain Peak Power Out Average Power Out Duty Cycle	5 0.1E0 5 5 5 7 9 UHF
DESIGN APPROACH/TECHNOLOGY Nonlinear Solid State Video Monitor Manual Radar Radio Solid State Switching Regulated Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID 147			IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	PROGRAM ID	147	General Purpose Computer		Automated ON line	Automated OFF line	Weight	6
CATEGORY	Communications		BIT Microprocessor		Manual		Volume	0.2E0
EQUIPMENT TYPE	Antenna		Software Controlled		COOLING		Height	11
DERATING GUIDELINES	Not Reported		Hardware Controlled		Ambient Air	X	Width	11
SELF TEST CAPABILITY	Not Reported		Automated Print Out		Forced Air		Depth	4
REPLACEMENT LEVEL	Not Reported		Manual Read Panel		Liquid		Power	1
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Modules	UHF
Directional			Hybrid		Redundant Channels		Frequency Band	
Fixed			Linear/Interface		Graceful Degrading		Polarization	
Helical			Digital SSI/MSI		Degraded Modes		Gain	
Manual			Digital LSI & Memory		None		Effective Area	
Radar			Microprocessor		SCREEN CLASS		Beam Width	
Radio			Total IC'S		JAN TXV		Azimuth Scan Rate	
Solid State			Tubes		JAN TX		Elevation Scan Rate	
Switching Regulated			Discretes		JAN Grade		Scan Sector Width	
Under 50 Volts			TOTAL ELEMENTS		Commercial Grade			
EQUIPMENT ID 148			IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	PROGRAM ID	148	General Purpose Computer		Automated ON line	Fault Detection	Weight	42
CATEGORY	Controls/Displays		BIT Microprocessor		Automated OFF line		Volume	0.7E0
EQUIPMENT TYPE			Software Controlled		Manual	Reconfiguration	Height	
DERATING GUIDELINES	Not Reported		Hardware Controlled		COOLING		Width	
SELF TEST CAPABILITY	Automated Bit		Automated Print Out		Ambient Air		Depth	
REPLACEMENT LEVEL	Not Reported		Manual Read Panel		Forced Air	X	Power	3.0E2
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Modules	33
Graphic			Hybrid		Redundant Channels		Resolution	
Non-Interactive			Linear/Interface		Graceful Degrading		# of Character Lines	
Helical			Digital SSI/MSI		Degraded Modes		Refresh	
Manual			Digital LSI & Memory		None		Operating Speed	
Radar			Microprocessor		SCREEN CLASS		Number of Keys	16
Radio			Total IC'S		JAN TXV		Display Area	
Solid State			Tubes		JAN TX		# of Characters/Line	4
Switching Regulated			Discretes		JAN Grade		# of Controls	
Under 50 Volts			TOTAL ELEMENTS		Commercial Grade		Accuracy	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
CATEGORY	149		BIT Microprocessor	Automated OFF line		Volume	21	
EQUIPMENT TYPE	Controls/Displays		Software Controlled	Manual	COOLING	Height	0.4E0	
DERATING GUIDELINES	Signal/Data		Hardware Controlled			Width	6	
SELF TEST CAPABILITY	Not Reported		Automated Print Out	Ambient Air		Depth	8	
REPLACEMENT LEVEL	Automated Bit		Manual Read Panel	Forced Air	X	Power	14	
	Not Reported			Liquid		Modules	16	
						Clock Frequency	2.4E7	
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Word Length		
Analog			Hybrid	Redundant Channels		Memory Size		
Dedicated			Linear/Interface	Graceful Degradation		Interrupt Levels		
Digital			Digital SSI/MSI	Degraded Modes		Memory I/O Rate		
Internal Semiconductor Memory			Digital LSI & Memory	None	SCREEN CLASS	# of Busses	4	
Serial			Microprocessor			# of Registers		
Stored Program			Total IC'S	JAN TXV		# of Accumulators		
Synchronous			Tubes	JAN TX		# of Input Ports	4	
Switching Regulated			Discretes	JAN Grade	X	# of Output Ports	8	
Under 50 Volts			TOTAL ELEMENTS	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
CATEGORY	150		BIT Microprocessor	Automated OFF line		Volume	21	
EQUIPMENT TYPE	Controls/Displays		Software Controlled	Manual	Reconfiguration	Height	0.3E0	
DERATING GUIDELINES	Indicator/Control		Hardware Controlled		COOLING	Width	5	
SELF TEST CAPABILITY	Not Reported		Automated Print Out	Ambient Air		Depth	6	
REPLACEMENT LEVEL	Automated Bit		Manual Read Panel	Forced Air	X	Power	15	
	Not Reported			Liquid		Modules	17	
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Input Rate		
Audible			Hybrid	Redundant Channels		Output Rate		
Manual			Linear/Interface	Graceful Degradation		# of Keys		
Mechanical			Digital SSI/MSI	Degraded Modes		# of Controls	4	
Meter			Digital LSI & Memory	None	SCREEN CLASS	Resolution		
Serial			Microprocessor			# of Lines		
Stored Program			Total IC'S	JAN TXV		# of Characters/Line		
Synchronous			Tubes	JAN TX		Display Area	16	
Switching Regulated			Discretes	JAN Grade	X	Display Diagonal		
Under 50 Volts			TOTAL ELEMENTS	Commercial Grade		# of Annunciators	1	
						Input Volts	115	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	151		General Purpose Computer	ACTIVE ELEMENT COUNT	9	Automated ON line	Weight	
PROGRAM ID			BIT Microprocessor			Automated OFF line	Volume	
CATEGORY	Communications		Software Controlled			Manual	Height	
EQUIPMENT TYPE			Hardware Controlled				Width	
DERATING GUIDELINES	Not Reported		Automated Print Out			Ambient Air	Depth	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Forced Air	Power	
REPLACEMENT LEVEL	Not Reported					Liquid	Modules	
DESIGN APPROACH/TECHNOLOGY							Frequency Band	UHF
Amplitude Modulation							Range	
Audio/Voice			Hybrid			Redundant Channels	Peak RF Power	1.0E1
Continuous Wave			Linear/Interface		38	Graceful Degrading	Average RF Power	1.0E1
Half Duplex			Digital SSI/MSI		51	Degraded Modes	Simultaneous Channel	1
Radio			Digital LSI & Memory		0	None	Channel Width	2.5E4
Solid State			Microprocessor		0		Receiver Sensitivity	4.0E0
Transceiver			Total IC'S		98	SCREEN CLASS	Maximum Baud Rate	
Switching Regulated			Tubes		0	JAN TXV	Minimum Baud Rate	
Under 50 Volts			Discretes		362	JAN TX	# of Selectable Freq	20
			TOTAL ELEMENTS		460	JAN Grade	Frequency Stability	
						Commercial Grade	Duty Cycle	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	152		General Purpose Computer	ACTIVE ELEMENT COUNT	0	Automated ON line	Weight	
PROGRAM ID			BIT Microprocessor			Automated OFF line	Volume	
CATEGORY	Communications		Software Controlled			Manual	Height	
EQUIPMENT TYPE	Indicator/Control		Hardware Controlled				Width	
DERATING GUIDELINES	Not Reported		Automated Print Out			Ambient Air	Depth	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel			Forced Air	Power	
REPLACEMENT LEVEL	Not Reported					Liquid	Modules	
DESIGN APPROACH/TECHNOLOGY							Input Rate	
Electromechanical							Output Rate	
Manual							# of Keys	
Continuous Wave			Hybrid		0	Redundant Channels	# of Controls	5
Half Duplex			Linear/Interface		5	Graceful Degrading	Resolution	
Radio			Digital SSI/MSI		15	Degraded Modes	# of Lines	
Solid State			Digital LSI & Memory		0	None	# of Characters/Line	
Transceiver			Microprocessor		0		Display Area	
Switching Regulated			Total IC'S		20	SCREEN CLASS	Display Diagonal	
Under 50 Volts			Tubes		0	JAN TXV	# of Annunciators	
			Discretes		89	JAN TX	Input Volts	
			TOTAL ELEMENTS		109	JAN Grade		
						Commercial Grade		

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	153 Communications Indicator/Control Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Alphanumeric Electromechanical Flat Panel Visual Radio Solid State Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	154 Communications Transceiver Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Continuous Wave Tube Voice Radio Solid State Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	6 1.0EO 20	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	155 Communications Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Audio/Voice Continuous Wave Half Duplex Radio Solid State Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	UHF 1.0E1 1 2.5E4 4.0E0	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	156 Communications Indicator/Control Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Electromechanical Manual Continuous Wave Half Duplex Radio Solid State Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts		



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	157 Communications Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts			
DESIGN APPROACH/TECHNOLOGY Alphanumeric Electromechanical Flat Panel Visual Radio Solid State Transceiver Switching Regulated Under 50 Volts								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	158 Communications Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency			
DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Ballistic Continuous Wave Tube Radio Solid State Transceiver Switching Regulated Under 50 Volts								

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	159			General Purpose Computer			Automated ON line	Weight			17
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.9E0
CATEGORY	Communications			Software Controlled			Manual	Height			10
EQUIPMENT TYPE				Hardware Controlled			COOLING	Width			5
DERATING GUIDELINES	Intermediate Reliability			Automated Print Out			Ambient Air X	Depth			30
SELF TEST CAPABILITY	None			Manual Read Panel			Forced Air	Power			1.1E2
REPLACEMENT LEVEL	Not Reported						Liquid	Modules			8
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band		UHF	
Amplitude Modulation				Hybrid		Redundant Channels		Range			
Audio/Voice				Linear/Interface		Graceful Degrading		Peak RF Power		1.0E1	
Continuous Wave				Digital SSI/MSI		Degraded Modes		Simultaneous Channel		2	
Half Duplex				Digital LSI & Memory		None		Channel Width		2.5E4	
Solid State				Microprocessor		SCREEN CLASS		Receiver Sensitivity		4.0E0	
Testability				Total IC'S		JAN TXV		Maximum Baud Rate			
Transceiver				Tubes		JAN TX		Minimum Baud Rate			
Switching Regulated				Discretes		JAN Grade		# of Selectable Freq		20	
Under 50 Volts				TOTAL ELEMENTS		Commercial Grade		Frequency Stability			
								Duty Cycle		17.0	
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	160			General Purpose Computer			Automated ON line	Weight			17
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.9E0
CATEGORY	Communications			Software Controlled			Manual	Height			10
EQUIPMENT TYPE				Hardware Controlled			COOLING	Width			5
DERATING GUIDELINES	Intermediate Reliability			Automated Print Out			Ambient Air X	Depth			30
SELF TEST CAPABILITY	None			Manual Read Panel			Forced Air	Power			1.1E2
REPLACEMENT LEVEL	Not Reported						Liquid	Modules			8
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band		UHF	
Amplitude Modulation				Hybrid		Redundant Channels		Range			
Audio/Voice				Linear/Interface		Graceful Degrading		Peak RF Power		1.0E1	
Continuous Wave				Digital SSI/MSI		Degraded Modes		Simultaneous Channel		2	
Half Duplex				Digital LSI & Memory		None		Channel Width		2.5E4	
Solid State				Microprocessor		SCREEN CLASS		Receiver Sensitivity		4.0E0	
Testability				Total IC'S		JAN TXV		Maximum Baud Rate			
Transceiver				Tubes		JAN TX		Minimum Baud Rate			
Switching Regulated				Discretes		JAN Grade		# of Selectable Freq		20	
Under 50 Volts				TOTAL ELEMENTS		Commercial Grade		Frequency Stability			
								Duty Cycle		17.0	

# BERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	161 Communications Indicator/Control Intermediate Reliability None Not Reported	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	162 Communications Indicator/Control Intermediate Reliability None Not Reported	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	161 Communications Indicator/Control Intermediate Reliability None Not Reported	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	162 Communications Indicator/Control Intermediate Reliability None Not Reported	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	163 Communications Indicator/Control Intermediate Reliability None Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 16 8 0 0 24 0 129 153	Automated ON line Automated OFF line Manual Cooling Ambient Air Forced Air Liquid Fault TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	164 Communications Indicator/Control Intermediate Reliability None Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 16 8 0 0 24 0 129 153	Automated ON line Automated OFF line Manual Cooling Ambient Air Forced Air Liquid Fault TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	165 Communications Indicator/Control Intermediate Reliability None Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 16 8 0 0 24 0 129 153	Automated ON line Automated OFF line Manual Cooling Ambient Air Forced Air Liquid Fault TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 6 5 5 1.0E1 9	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	165	General Purpose Computer	0	Automated ON line	Weight	4		
PROGRAM ID		BIT Microprocessor	16	Automated OFF line	Volume	0.1E0		
CATEGORY	Communications	Software Controlled	8	Manual	Height	6		
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	0		Width	5		
DERATING GUIDELINES	Intermediate Reliability	Automated Print Out	0	Ambient Air X	Depth	5		
SELF TEST CAPABILITY	None	Manual Read Panel	0	Forced Air	Power	1.0E1		
REPLACEMENT LEVEL	Not Reported		0	Liquid	Modules	9		
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Redundant Channels	Input Rate			
Audible		Hybrid	0	Graceful Degrading	Output Rate			
Electromechanical		Linear/Interface	16	Degraded Modes	# of Keys	13		
Manual		Digital SSI/MSI	8	None	# of Controls			
Half Duplex		Digital LSI & Memory	0	SCREEN CLASS	Resolution			
Solid State		Microprocessor	0	JAN TXV	# of Lines			
Testability		Total IC'S	24	JAN TX	# of Characters/Line			
Transceiver		Tubes	0	JAN Grade	Display Area			
Switching Regulated		Discretes	129	Commercial Grade	Display Diagonal			
Under 50 Volts		TOTAL ELEMENTS	153		# of Annunciators	28		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	166	General Purpose Computer	0	Automated ON line	Weight	1		
PROGRAM ID		BIT Microprocessor	12	Automated OFF line	Volume	0.1E0		
CATEGORY	Communications	Software Controlled	16	Manual	Height	2		
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	0		Width	2		
DERATING GUIDELINES	Intermediate Reliability	Automated Print Out	0	Ambient Air X	Depth	6		
SELF TEST CAPABILITY	None	Manual Read Panel	0	Forced Air	Power			
REPLACEMENT LEVEL	Not Reported		0	Liquid	Modules	4		
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Redundant Channels	Input Rate			
Alphanumeric		Hybrid	0	Graceful Degrading	Output Rate			
Electromechanical		Linear/Interface	12	Degraded Modes	# of Keys			
Flat Panel		Digital SSI/MSI	16	None	# of Controls			
Visual		Digital LSI & Memory	0	SCREEN CLASS	Resolution			
Solid State		Microprocessor	0	JAN TXV	# of Lines	1		
Testability		Total IC'S	28	JAN TX	# of Characters/Line	5		
Transceiver		Tubes	0	JAN Grade	Display Area			
Switching Regulated		Discretes	89	Commercial Grade	Display Diagonal			
Under 50 Volts		TOTAL ELEMENTS	117		# of Annunciators			

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
167	Communications	Indicator/Control	Intermediate Reliability	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid	Weight 1 Volume 0.1EO Height 2 Width 2 Depth 6 Power Modules 4 Input Rate Output Rate # of Keys # of Controls Resolution # of Lines 1 # of Characters/Line 5 Display Area Display Diagonal # of Annunciators Input Volts
				ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
Alphanumeric				Hybrid 0	Redundant Channels	
Electromechanical				Linear/Interface 12	Graceful Degrading	
Flat Panel				Digital SSI/MSI 16	Degraded Modes	
Visual				Digital LSI & Memory 0	None X	
Solid State				Microprocessor 0	SCREEN CLASS	
Testability				Total IC's 28	JAN TXV X	
Transceiver				Tubes 0	JAN TX X	
Switching Regulated				Discretes 89	JAN Grade X	
Under 50 Volts				TOTAL ELEMENTS 117	Commercial Grade X	
168	Communications	Interconnect/Distribute	Intermediate Reliability	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid	Weight 5 Volume 0.5EO Height 10 Width 4 Depth 20 Power Modules 1 # of Signals Frequency Band UHF Power Level
				ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
Passive				Hybrid 0	Redundant Channels	
Power				Linear/Interface 0	Graceful Degrading	
Signal				Digital SSI/MSI 0	Degraded Modes	
Visual				Digital LSI & Memory 0	None X	
Solid State				Microprocessor 0	SCREEN CLASS	
Testability				Total IC's 0	JAN TXV	
Transceiver				Tubes 0	JAN TX	
Switching Regulated				Discretes 0	JAN Grade	
Under 50 Volts				TOTAL ELEMENTS 0	Commercial Grade X	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	169 Communications Interconnect/Distribute Intermediate Reliability Not Reported Not Reported	ACTIVE ELEMENT COUNT		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level	5 0.5E0 10 4 20 1 UHF				
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE							
Passive		Hybrid	0	Redundant Channels							
Power		Linear/Interface	0	Graceful Degradation							
Signal		Digital SSI/MSI	0	Degraded Modes	X						
Visual		Digital LSI & Memory	0	None							
Solid State		Microprocessor	0	SCREEN CLASS							
Testability		Total IC'S	0	JAN TXV							
Transceiver		Tubes	0	JAN TX							
Switching Regulated		Discretes	0	JAN Grade							
Under 50 Volts		TOTAL ELEMENTS	0	Commercial Grade	X						
===== IMPLEMENTATION =====				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	170 Communications Interconnect/Distribute Intermediate Reliability Not Reported Not Reported	ACTIVE ELEMENT COUNT		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level	5 1.5E0 10 11 23 1 UHF				
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE							
Passive		Hybrid	0	Redundant Channels							
Power		Linear/Interface	0	Graceful Degradation							
Signal		Digital SSI/MSI	0	Degraded Modes	X						
Visual		Digital LSI & Memory	0	None							
Solid State		Microprocessor	0	SCREEN CLASS							
Testability		Total IC'S	0	JAN TXV							
Transceiver		Tubes	0	JAN TX							
Switching Regulated		Discretes	0	JAN Grade							
Under 50 Volts		TOTAL ELEMENTS	0	Commercial Grade	X						

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===== IMPLEMENTATION =====										===== FAULT CONTROL =====										===== MAJOR PARAMETERS =====																																																																			
EQUIPMENT ID		PROGRAM ID		CATEGORY		EQUIPMENT TYPE		DERATING GUIDELINES		SELF TEST CAPABILITY		REPLACEMENT LEVEL		DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Automated OFF line		Manual		Ambient Air		Forced Air		Liquid		FAULT TOLERANCE		Redundant Channels		Graceful Degrading		Degraded Modes		None		SCREEN CLASS		JAN TXV		JAN TX		JAN Grade		Commercial Grade		Weight		Volume		Height		Width		Depth		Power		Modules		# of Outputs		Voltage Out # 1		Voltage Out # 2		Voltage Out # 3		Current Out # 1		Current Out # 2		Current Out # 3		Percent Regulation 1		Percent Regulation 2		Percent Regulation 3		Input Frequency		Convert or Output Frequency	
171		Communications	Power Supply	Intermediate Reliability	Not Reported	Not Reported	DC Output	Fixed Voltage Output	Over 150 Volts	Solid State	Solid State	Testability	Transceiver	Switching Regulated	Under 50 Volts	Hybrid	0	Redundant Channels	Graceful Degrading	Degraded Modes	None	SCREEN CLASS	JAN TXV	JAN TX	JAN Grade	Commercial Grade	Weight	Volume	Height	Width	Depth	Power	Modules	# of Outputs	Voltage Out # 1	Voltage Out # 2	Voltage Out # 3	Current Out # 1	Current Out # 2	Current Out # 3	Percent Regulation 1	Percent Regulation 2	Percent Regulation 3	Input Frequency	Convert or Output Frequency																																										
===== IMPLEMENTATION =====										===== FAULT CONTROL =====										===== MAJOR PARAMETERS =====																																																																			
EQUIPMENT ID		PROGRAM ID		CATEGORY		EQUIPMENT TYPE		DERATING GUIDELINES		SELF TEST CAPABILITY		REPLACEMENT LEVEL		DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		Automated ON line		Automated OFF line		Manual		Ambient Air		Forced Air		Liquid		FAULT TOLERANCE		Redundant Channels		Graceful Degrading		Degraded Modes		None		SCREEN CLASS		JAN TXV <td colspan="2">JAN TX</td> <td colspan="2">JAN Grade</td> <td colspan="2">Commercial Grade</td> <td colspan="2">Weight</td> <td colspan="2">Volume</td> <td colspan="2">Height</td> <td colspan="2">Width</td> <td colspan="2">Depth</td> <td colspan="2">Power</td> <td colspan="2">Modules</td> <td colspan="2">Frequency Band</td> <td colspan="2">Peak Power Out</td> <td colspan="2">Average Power Out</td> <td colspan="2"># of Selectable Frequencies</td> <td colspan="2">Frequency Stability</td> <td colspan="2">Digital Data Rate</td> <td colspan="2">Receiver Sensitivity</td> <td colspan="2">Pulse Repetition Frequency</td>		JAN TX		JAN Grade		Commercial Grade		Weight		Volume		Height		Width		Depth		Power		Modules		Frequency Band		Peak Power Out		Average Power Out		# of Selectable Frequencies		Frequency Stability		Digital Data Rate		Receiver Sensitivity		Pulse Repetition Frequency									
172		Communications	Transceiver	Intermediate Reliability	None	Not Reported	Amplitude Modulation	Continuous Wave	Secure	Solid State	Variable Frequency	Voice	Transceiver	Switching Regulated	Under 50 Volts	Hybrid	0	Redundant Channels	Graceful Degrading	Degraded Modes	None	SCREEN CLASS	JAN TXV	JAN TX	JAN Grade	Commercial Grade	Weight	Volume	Height	Width	Depth	Power	Modules	Frequency Band	Peak Power Out	Average Power Out	# of Selectable Frequencies	Frequency Stability	Digital Data Rate	Receiver Sensitivity	Pulse Repetition Frequency																																														



EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL
173	Communications	Transceiver	Intermediate Reliability	None	Not Reported	
<b>DESIGN APPROACH/TECHNOLOGY</b>						
Amplitude Modulation						
Continuous Wave						
Secure						
Solid State						
Variable Frequency						
Voice						
Transceiver						
Switching Regulated						
Under 50 Volts						
<b>IMPLEMENTATION</b>						
General Purpose Computer						
BIT Microprocessor						
Software Controlled						
Hardware Controlled						
Automated Print Out						
Manual Read Panel						
<b>ACTIVE ELEMENT COUNT</b>						
Hybrid						
Linear/Interface						
Digital SSI/MSI						
Digital LSI & Memory						
Microprocessor						
Total IC'S						
Tubes						
Discretes						
TOTAL ELEMENTS						
<b>FAULT CONTROL</b>						
Automated ON Line						
Automated OFF Line						
Manual						
Ambient Air						
Forced Air						
Liquid						
<b>FAULT TOLERANCE</b>						
Redundant Channels						
Graceful Degrading						
Degraded Modes						
None						
<b>SCREEN CLASS</b>						
JAN TXV						
JAN TX						
JAN Grade						
Commercial Grade						
<b>MAJOR PARAMETERS</b>						
Weight						
Volume						
Height						
Width						
Depth						
Power						
Modules						
Frequency Band						
Peak Power Out						
Average Power Out						
# of Selectable						
Frequencies						
Frequency Stability						
Digital Data Rate						
Receiver Sensitivity						
Pulse Repetition						
Frequency						

## EQUIPMENT CHARACTERIZATION

IMPLEMENTATION			FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	175	General Purpose Computer	Automated ON line	Weight	9	
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	0.1E0	
CATEGORY	Communications	Software Controlled	Manual	Height	5	
EQUIPMENT TYPE	Transceiver	Hardware Controlled		Width	5	
DERATING GUIDELINES	Intermediate Reliability	Automated Print Out	Ambient Air X	Depth	9	
SELF TEST CAPABILITY	None	Manual Read Panel	Forced Air	Power	1.1E2	
REPLACEMENT LEVEL	Not Reported		Liquid	Modules	5	
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE		UHF	
Amplitude Modulation		ACTIVE ELEMENT COUNT	Redundant Channels	Peak Power Out	6.0E0	
Continuous Wave		Hybrid	Graceful Degrading	Average Power Out	20	
Secure		Linear/Interface	Degraded Modes	# of Selectable	20	
Solid State		Digital SSI/MSI	None	Frequencies		
Variable Frequency		Digital LSI & Memory	SCREEN CLASS	Frequency Stability		
Voice		Microprocessor		Digital Data Rate		
Transceiver		Total IC's	JAN TXV X	Receiver Sensitivity	4.0E0	
Switching Regulated		Tubes	JAN TX X	Pulse Repetition		
Under 50 Volts		Discretes	JAN Grade X	Frequency		
		TOTAL ELEMENTS	Commercial Grade X			
IMPLEMENTATION			FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID	176	General Purpose Computer	Automated ON line	Weight	319	
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	5.4E0	
CATEGORY	Radar	Software Controlled	Manual	Height		
EQUIPMENT TYPE	Receiver	Hardware Controlled		Width		
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air X	Depth		
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	Forced Air X	Power		
REPLACEMENT LEVEL	Assembly (SRU)		Liquid	Modules	35	
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE		Sensitivity	
Digital Data		ACTIVE ELEMENT COUNT	Redundant Channels	# of Simultaneous		
Digital Signal Processing		Hybrid	Graceful Degrading	Channels		
Radar		Linear/Interface	Degraded Modes	Channel Width		
Solid State		Digital SSI/MSI	None	Digital Data Rate		
Variable Frequency		Digital LSI & Memory	SCREEN CLASS	# of Selectable		
Voice		Microprocessor		Frequencies		
Transceiver		Total IC's	JAN TXV	Frequency Band		
Switching Regulated		Tubes	JAN TX X			
Under 50 Volts		Discretes	JAN Grade X			
		TOTAL ELEMENTS	Commercial Grade X			

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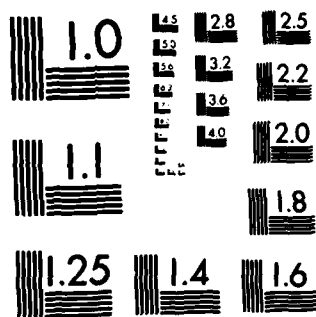
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NATIONAL BUREAU OF STANDARDS-1963-A

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
177		Radar	Signal/Data	Not Reported	Automated Bit	Assembly (SRU)	Digital Digital Signal Processing Radar Solid State Variable Frequency Voice Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor X Software Controlled Hardware Controlled Automated Print Out Manual Read Panel X	Automated ON line Fault Detection Automated OFF line Fault Isolation Manual Fault Isolation  Cooling Ambient Air Forced Air X Liquid  Fault Tolerance Redundant Channels Graceful Degrading Degraded Modes None  Screen Class JAN TXV JAN TX X JAN Grade X Commercial Grade	Weight 22 Volume 0.7EO Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports
178		Radar	Signal/Data	Not Reported	Automated Bit	Assembly (SRU)	Analog Digital Radar Solid State Variable Frequency Voice Transceiver Switching Regulated Under 50 Volts	General Purpose Computer BIT Microprocessor X Software Controlled Hardware Controlled Automated Print Out Manual Read Panel X	Automated ON line Fault Detection Automated OFF line Fault Isolation Manual Fault Isolation  Cooling Ambient Air Forced Air X Liquid  Fault Tolerance Redundant Channels Graceful Degrading Degraded Modes None  Screen Class JAN TXV JAN TX X JAN Grade X Commercial Grade	Weight 19 Volume 0.4EO Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	ACTIVE ELEMENT COUNT	FAULT CONTROL	MAJOR PARAMETERS
179	Radar	Signal/Data	Not Reported	Automated Bit Assembly (SRU)			Analog	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	X X X X	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports
	Dedicated	Digital	Solid State	Variable Frequency	Voice	Transceiver		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	13 21 7 0 0 41 0 251 292	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	
180	Radar	Signal/Data	Not Reported	Automated Bit Assembly (SRU)			Dedicated	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	X X X X	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports
	Digital	Solid State	Variable Frequency	Voice	Transceiver			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	4 12 7 0 0 23 0 69 92	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	183 Radar Receiver Not Reported Automated Bit Assembly (SRU)	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air Liquid	Fault Detection Fault Isolation Fault Isolation	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band				
			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	35 20 6 2 0 63 0 60 123	Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade		39 0.6E0 21 9 13 2.8E1				
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	184 Radar Receiver Not Reported Automated Bit Assembly (SRU)	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air Liquid	Fault Detection Fault Isolation Fault Isolation	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band				
			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	31 13 4 2 0 50 0 41 91	Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade		20 0.2E0 17 8 8 2.5E1				



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	185			General Purpose Computer			Automated ON line	Fault Detection			Weight
PROGRAM ID				BIT Microprocessor			Automated OFF line	Fault Isolation			Volume
CATEGORY	Radar			Software Controlled	X		Manual	Fault Isolation			Height
EQUIPMENT TYPE	Receiver			Hardware Controlled			COOLING				Width
DERATING GUIDELINES	Not Reported			Automated Print Out			Ambient Air	X			Depth
SELF TEST CAPABILITY	Automated Bit			Manual Read Panel	X		Forced Air				Power
REPLACEMENT LEVEL	Assembly (SRU)						Liquid				Modules
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE				Sensitivity	
Digital Data				Hybrid	7		Redundant Channels			# of Simultaneous Channels	
Digital Signal Processing				Linear/Interface	75		Graceful Degrading			Channel Width	
Radar				Digital SSI/MSI	14		Degraded Modes			Digital Data Rate	
Solid State				Digital LSI & Memory	0		None			# of Selectable Frequencies	
Solid State				Microprocessor	0		SCREEN CLASS				Frequency Band
Under 50 Volts				Total IC's	96		JAN TXV				
Transceiver				Tubes	0		JAN TX	X			
Switching Regulated				Discretes	212		JAN Grade	X			
Under 50 Volts				TOTAL ELEMENTS	308		Commercial Grade				
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	186			General Purpose Computer			Automated ON line	Fault Detection			Weight
PROGRAM ID				BIT Microprocessor	X		Automated OFF line	Fault Isolation			Volume
CATEGORY	Radar			Software Controlled			Manual	Fault Isolation			Height
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled			COOLING				Width
DERATING GUIDELINES	Not Reported			Automated Print Out			Ambient Air	X			Depth
SELF TEST CAPABILITY	Automated Bit			Manual Read Panel	X		Forced Air				Power
REPLACEMENT LEVEL	Assembly (SRU)						Liquid				Modules
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE				Input Rate	
Automatic				Hybrid	10		Redundant Channels			Output Rate	
Electromechanical				Linear/Interface	4		Graceful Degrading			# of Keys	
Radar				Digital SSI/MSI	5		Degraded Modes			# of Controls	
Solid State				Digital LSI & Memory	0		None			Resolution	
Solid State				Microprocessor	0		SCREEN CLASS				# of Lines
Under 50 Volts				Total IC's	19		JAN TXV			# of Characters/Line	
Transceiver				Tubes	0		JAN TX	X			Display Area
Switching Regulated				Discretes	12		JAN Grade	X			Display Diagonal
Under 50 Volts				TOTAL ELEMENTS	31		Commercial Grade			# of Annunciators	
										Input Volts	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	187 Controls/Displays Indicator/Control Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air Liquid	Reconfiguration	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	98 2.0E0 11 59 7.3E2 71	
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE				
Alphanumeric Automatic CRT Flat Panel Graphic Internal Semiconductor Memory Manual Optoelectronic Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	196 165 38 7 0 406 4 466 876	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	188 Controls/Displays Indicator/Control Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual COOLING Ambient Air Forced Air Liquid	Reconfiguration	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 3 5 5 6	
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE				
Alphanumeric Flat Panel Graphic Internal Semiconductor Memory Manual Optoelectronic Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	7 7 1 0 0 15 0 2 17	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade				

# EERD-2 EQUIPMENT RELIABILITY

IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Automated OFF line	Weight		
CATEGORY	189	Controls/Displays	BIT Microprocessor	Manual	Manual	Volume	0.6E0	
EQUIPMENT TYPE	Converter	Converter	Software Controlled	COOLING		Height	8	
DERATING GUIDELINES	Not Reported	Not Reported	Hardware Controlled			Width	6	
SELF TEST CAPABILITY	Not Reported	Not Reported	Automated Print Out	Ambient Air X		Depth	23	
REPLACEMENT LEVEL	Not Reported	Not Reported	Manual Read Panel	Forced Air		Power		
				Liquid		Modules	17	
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		# of Bits		
			Hybrid	Redundant Channels		Clock Frequency		
			Linear/Interface	Graceful Degrading		Freq. Band Input		
			Digital SSI/MSI	Degraded Modes		Freq. Band Output		
			Digital LSI & Memory	None				
			Microprocessor	SCREEN CLASS				
			Total IC's	JAN TXV				
			Tubes	JAN TX	X			
			Discretes	JAN Grade	X			
			TOTAL ELEMENTS	Commercial Grade	X			
IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Automated OFF line	Weight		
CATEGORY	190	Controls/Displays	BIT Microprocessor	Manual	Manual	Volume	0.1E0	
EQUIPMENT TYPE	Indicator/Control	Indicator/Control	Software Controlled	COOLING		Height	2	
DERATING GUIDELINES	Not Reported	Not Reported	Hardware Controlled			Width	5	
SELF TEST CAPABILITY	Not Reported	Not Reported	Automated Print Out	Ambient Air X		Depth	6	
REPLACEMENT LEVEL	Not Reported	Not Reported	Manual Read Panel	Forced Air		Power		
				Liquid		Modules	3	
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Input Rate		
			Hybrid	Redundant Channels		Output Rate		
			Linear/Interface	Graceful Degrading		# of Keys		
			Digital SSI/MSI	Degraded Modes		# of Controls	3	
			Digital LSI & Memory	None		Resolution		
			Microprocessor	SCREEN CLASS		# of Lines		
			Total IC's	JAN TXV		# of Characters/Line		
			Tubes	JAN TX	X	Display Area		
			Discretes	JAN Grade	X	Display Diagonal		
			TOTAL ELEMENTS	Commercial Grade	X	# of Annunciators	11	
						Input Volts		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	191 Controls/Displays Indicator/Control Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration COOLING	Weight Volume Height Width Depth Power Modules	23 0.650 10 10 11 16				
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE				Input Rate				
Alphanumeric			Hybrid	45	Redundant Channels		Output Rate				
CRT			Linear/Interface	36	Graceful Degrading		# of Keys				
Flat Panel			Digital SSI/MSI	12	Degraded Modes		# of Controls				
Graphic			Digital LSI & Memory	0	None		Resolution				
Manual			Microprocessor	0	SCREEN CLASS		# of Lines				
Optoelectronic			Total IC's	93	JAN TXV		# of Characters/Line				
Manual			Tubes	1	JAN TX	X	Display Area				
Optoelectronic			Discretes	149	JAN Grade	X	Display Diagonal				
Under 50 Volts			TOTAL ELEMENTS	243	Commercial Grade	X	# of Annunciators				
							Input Volts				
				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	192 Controls/Displays Indicator/Control Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration COOLING	Weight Volume Height Width Depth Power Modules	26 0.5E0 9 10 10 21				
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE				Input Rate				
Alphanumeric			Hybrid	74	Redundant Channels		Output Rate				
CRT			Linear/Interface	54	Graceful Degrading		# of Keys				
Flat Panel			Digital SSI/MSI	15	Degraded Modes		# of Controls				
Graphic			Digital LSI & Memory	0	None		Resolution				
Manual			Microprocessor	0	SCREEN CLASS		# of Lines				
Optoelectronic			Total IC's	143	JAN TXV		# of Characters/Line				
Manual			Tubes	2	JAN TX	X	Display Area				
Optoelectronic			Discretes	153	JAN Grade	X	Display Diagonal				
Under 50 Volts			TOTAL ELEMENTS	298	Commercial Grade	X	# of Annunciators				
							Input Volts				

# BERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	193 Controls/Displays Indicator/Control Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled Automated Print Out Manual Read Panel X	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid	Reconfiguration COOLING FAULT TOLERANCE	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	5 0.1E0 4 3 8 7	
DESIGN APPROACH/TECHNOLOGY	Alphanumeric Automatic CRT Graphic Manual Optoelectronic Manual Optoelectronic Under 50 Volts	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	12 6 0 0 0 18 1 39 58	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX X JAN Grade X Commercial Grade X	SCREEN CLASS			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	194 Controls/Displays Power Supply Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid	Reconfiguration COOLING FAULT TOLERANCE	Weight Volume Height Width Depth Power Modules # of Outputs Voltage Out # 1 Voltage Out # 2 Voltage Out # 3 Current Out # 1 Current Out # 2 Current Out # 3 Percent Regulation 1 Percent Regulation 2 Percent Regulation 3 Input Frequency Convert or Output Frequency	6 0.1E0 4 6 5 1 2 14 28	
DESIGN APPROACH/TECHNOLOGY	AC Input DC Output Over Voltage Protection Solid State Under 50 Volts Variable Frequency Manual Optoelectronic Under 50 Volts	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 0 0 19 19	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX X JAN Grade X Commercial Grade X	SCREEN CLASS			

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL		DESIGN APPROACH/TECHNOLOGY		IMPLEMENTATION		FAULT CONTROL				MAJOR PARAMETERS	
195	Radar Computer (CPU) Not Reported Semi Automated Bit Unit (LRU/SRU)	Digital General Purpose Int Processor Mag Core Memory Parallel Under 50 Volts Variable Frequency Manual Optoelectronic Under 50 Volts	General Purpose Computer X BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	84 201 1,127 33 0 1,445 0 1,179 2,624	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration Reconfiguration COOLING X	FAULT TOLERANCE	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	54 1.1E0 18 8 14 2.8E2 18 1.0E6 16 6.6E4 24 1 10 2 2	

# EERD-2 EQUIPMENT RELIABILITY

DESIGN APPROACH/TECHNOLOGY			IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID PROGRAM ID CATEGORY	197 Communications		General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	76 2.2E0	
EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	Amplitude Modulation Audio/Voice Radio Secure Communication/Vocode Solid State Transceiver Wide Band Optoelectronic Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	1 42 30 0 0 73 0 405 478	Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			
EQUIPMENT ID PROGRAM ID CATEGORY	198 Communications		General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	1 0.1E0 3 3 5 1	
EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	Audible Electromechanical Manual Servo Solid State Transceiver Wide Band Optoelectronic Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 0 0 16 16	Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	199 Communications Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	75 2.1E0 9 19 21 4.5E2 11 UHF 2.0E1	
DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Secure Variable Frequency Voice Solid State Transceiver Wide Band Optoelectronic Under 50 Volts				Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	FAULT TOLERANCE X X X			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	200 Radar Not Reported Automated Bit Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain	50.0 1.4E5 1.1E2 1600 360.0 12.0 H 2.5 30.0 34.0	
DESIGN APPROACH/TECHNOLOGY Magnetron Multichannel/Multifrequency Oscillating Surveillance/Search Solid State Transceiver Wide Band Optoelectronic Under 50 Volts				Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	FAULT TOLERANCE X X X			



[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height	Width	Depth
203	203	Azimuth Scanning	Hybrid	0	0	0	0	0	0	0	0
CATEGORY	Radar	Directional	Linear/Interface	0	0	0	0	0	0	0	0
EQUIPMENT TYPE	Antenna	Horizontally Stabilized	Digital SSI/MSI	0	0	0	0	0	0	0	0
DERATING GUIDELINES	Not Reported	Surveillance/Search	Digital LSI & Memory	0	0	0	0	0	0	0	0
SELF TEST CAPABILITY	None	Solid State	Microprocessor	0	0	0	0	0	0	0	0
REPLACEMENT LEVEL	Piece Part	Transceiver	Total IC'S	0	0	0	0	0	0	0	0
		Wide Band	Tubes	0	0	0	0	0	0	0	0
		Optoelectronic	Discretes	3	3	3	3	3	3	3	3
		Under 50 Volts	TOTAL ELEMENTS	3	3	3	3	3	3	3	3
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height	Width	Depth
204	204	Electromechanical	Hybrid	0	0	0	0	0	0	0	0
CATEGORY	Radar	Flat Panel	Linear/Interface	0	0	0	0	0	0	0	0
EQUIPMENT TYPE	Indicator/Control	Manual	Digital SSI/MSI	0	0	0	0	0	0	0	0
DERATING GUIDELINES	Not Reported	Surveillance/Search	Digital LSI & Memory	0	0	0	0	0	0	0	0
SELF TEST CAPABILITY	None	Solid State	Microprocessor	0	0	0	0	0	0	0	0
REPLACEMENT LEVEL	Piece Part	Transceiver	Total IC'S	0	0	0	0	0	0	0	0
		Wide Band	Tubes	0	0	0	0	0	0	0	0
		Optoelectronic	Discretes	1	1	1	1	1	1	1	1
		Under 50 Volts	TOTAL ELEMENTS	1	1	1	1	1	1	1	1

EQUIPMENT ID 205			EQUIPMENT ID 206		
PROGRAM ID	PROGRAM ID		PROGRAM ID	PROGRAM ID	
CATEGORY	CATEGORY		CATEGORY	CATEGORY	
EQUIPMENT TYPE	EQUIPMENT TYPE		EQUIPMENT TYPE	EQUIPMENT TYPE	
DERATING GUIDELINES	DERATING GUIDELINES		DERATING GUIDELINES	DERATING GUIDELINES	
SELF TEST CAPABILITY	SELF TEST CAPABILITY		SELF TEST CAPABILITY	SELF TEST CAPABILITY	
REPLACEMENT LEVEL	REPLACEMENT LEVEL		REPLACEMENT LEVEL	REPLACEMENT LEVEL	
205	206		205	206	
Electromechanical	Electromechanical		Electromechanical	Electromechanical	
Flat Panel	Flat Panel		Flat Panel	Flat Panel	
Manual	Manual		Manual	Manual	
Surveillance/Search	Surveillance/Search		Surveillance/Search	Surveillance/Search	
Solid State	Solid State		Solid State	Solid State	
Transceiver	Transceiver		Transceiver	Transceiver	
Wide Band	Wide Band		Wide Band	Wide Band	
Optoelectronic	Optoelectronic		Optoelectronic	Optoelectronic	
Under 50 Volts	Under 50 Volts		Under 50 Volts	Under 50 Volts	
General Purpose Computer	General Purpose Computer		General Purpose Computer	General Purpose Computer	
BIT Microprocessor	BIT Microprocessor		BIT Microprocessor	BIT Microprocessor	
Software Controlled	Software Controlled		Software Controlled	Software Controlled	
Hardware Controlled	Hardware Controlled		Hardware Controlled	Hardware Controlled	
Automated Print Out	Automated Print Out		Automated Print Out	Automated Print Out	
Manual Read Panel	Manual Read Panel		Manual Read Panel	Manual Read Panel	
ACTIVE ELEMENT COUNT	ACTIVE ELEMENT COUNT		ACTIVE ELEMENT COUNT	ACTIVE ELEMENT COUNT	
Hybrid	Hybrid		Hybrid	Hybrid	
Linear/Interface	Linear/Interface		Linear/Interface	Linear/Interface	
Digital SSI/MSI	Digital SSI/MSI		Digital SSI/MSI	Digital SSI/MSI	
Digital LSI & Memory	Digital LSI & Memory		Digital LSI & Memory	Digital LSI & Memory	
Microprocessor	Microprocessor		Microprocessor	Microprocessor	
Total IC'S	Total IC'S		Total IC'S	Total IC'S	
Tubes	Tubes		Tubes	Tubes	
Discretes	Discretes		Discretes	Discretes	
TOTAL ELEMENTS	TOTAL ELEMENTS		TOTAL ELEMENTS	TOTAL ELEMENTS	
Automated ON line	Automated ON line		Automated ON line	Automated ON line	
Automated OFF line	Automated OFF line		Automated OFF line	Automated OFF line	
Manual	Manual		Manual	Manual	
Ambient Air	Ambient Air		Ambient Air	Ambient Air	
Forced Air	Forced Air		Forced Air	Forced Air	
Liquid	Liquid		Liquid	Liquid	
COOLING	COOLING		COOLING	COOLING	
Redundant Channels	Redundant Channels		Redundant Channels	Redundant Channels	
Graceful Degradation	Graceful Degradation		Graceful Degradation	Graceful Degradation	
Degraded Modes	Degraded Modes		Degraded Modes	Degraded Modes	
None	None		None	None	
SCREEN CLASS	SCREEN CLASS		SCREEN CLASS	SCREEN CLASS	
JAN TXV	JAN TXV		JAN TXV	JAN TXV	
JAN TX	JAN TX		JAN TX	JAN TX	
JAN Grade	JAN Grade		JAN Grade	JAN Grade	
Commercial Grade	Commercial Grade		Commercial Grade	Commercial Grade	
Weight	Weight		Weight	Weight	
Volume	Volume		Volume	Volume	
Height	Height		Height	Height	
Width	Width		Width	Width	
Depth	Depth		Depth	Depth	
Power	Power		Power	Power	
Modules	Modules		Modules	Modules	
Input Rate	Input Rate		Input Rate	Input Rate	
Output Rate	Output Rate		Output Rate	Output Rate	
# of Keys	# of Keys		# of Keys	# of Keys	
# of Controls	# of Controls		# of Controls	# of Controls	
Resolution	Resolution		Resolution	Resolution	
# of Lines	# of Lines		# of Lines	# of Lines	
# of Characters/Line	# of Characters/Line		# of Characters/Line	# of Characters/Line	
Display Area	Display Area		Display Area	Display Area	
Display Diagonal	Display Diagonal		Display Diagonal	Display Diagonal	
# of Annunciators	# of Annunciators		# of Annunciators	# of Annunciators	
Input Volts	Input Volts		Input Volts	Input Volts	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	207	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line	Fault Detection	Weight					
PROGRAM ID		Electromechanical	Hybrid	Automated OFF line <td>Fault Detection<td>Volume</td></td>	Fault Detection <td>Volume</td>	Volume					
CATEGORY	Radar	Flat Panel	Linear/Interface	Manual		Height					
EQUIPMENT TYPE	Indicator/Control	Manual	Digital SSI/MSI			Width					
DERATING GUIDELINES	Not Reported	Surveillance/Search	Digital LSI & Memory			Depth					
SELF TEST CAPABILITY	None	Solid State	Microprocessor	Ambient Air	COOLING	Power					
REPLACEMENT LEVEL	Piece Part	Transceiver	Total IC'S	Forced Air		Modules					
		Wide Band	Tubes	Liquid		Input Rate					
		Optoelectronic	Discretes			Output Rate					
		Under 50 Volts	TOTAL ELEMENTS			# of Keys					
						# of Controls					
						Resolution					
						# of Lines					
						# of Characters/Line					
						Display Area					
						Display Diagonal					
						# of Annunciators					
						Input Volts					

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
209	Radar	Indicator/Control	Not Reported	Automated Bit	Piece Part	Electromechanical	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF line Manual Ambient Air X Forced Air Liquid  FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts
210	Radar	Transceiver	Not Reported	Automated Bit	Piece Part	Optoelectronic	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF line Manual Ambient Air X Forced Air Liquid  FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL
211	Radar	Transceiver	Not Reported	Automated Bit	Piece Part	
<b>DESIGN APPROACH/TECHNOLOGY</b>						
Radar	Tube	Variable Frequency	Visual	Solid State	Transceiver	Wide Band
Optoelectronic	Under 50 Volts					
<b>IMPLEMENTATION</b>						
General Purpose Computer	BITS Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	
ACTIVE ELEMENT COUNT	Hybrid	Linear/Interface	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	Total IC'S Tubes Discretes TOTAL ELEMENTS
0	19	0	0	0	0	19 3 442 464
<b>FAULT CONTROL</b>						
Automated ON line	Automated OFF line	Manual	Ambient Air	X	Forced Air	Liquid
Reconfiguration	Reconfiguration	COOLING	Fault Tolerance	Redundant Channels	Graceful Degrading	Degraded Modes
None	None	SCREEN CLASS	JAN TXV	X	JAN TX	X
JAN Grade	X	Commercial Grade				
<b>MAJOR PARAMETERS</b>						
Weight	Volume	Height	Width	Depth	Power	Modules
998	4.3E1					
<b>DESIGN APPROACH/TECHNOLOGY</b>						
Geographic Position	Radio	Radio	Visual	Solid State	Transceiver	Wide Band
Optoelectronic	Under 50 Volts					
<b>IMPLEMENTATION</b>						
General Purpose Computer	BITS Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	
ACTIVE ELEMENT COUNT	Hybrid	Linear/Interface	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	Total IC'S Tubes Discretes TOTAL ELEMENTS
257	340	1,973	312	0	2,882	1 2,545 5,428
<b>FAULT CONTROL</b>						
Automated ON line	Automated OFF line	Manual	Ambient Air	X	Forced Air	Liquid
Reconfiguration	Reconfiguration	COOLING	Fault Tolerance	Redundant Channels	Graceful Degrading	Degraded Modes
None	None	SCREEN CLASS	JAN TXV	X	JAN TX	X
JAN Grade	X	Commercial Grade				
<b>MAJOR PARAMETERS</b>						
Weight	Volume	Height	Width	Depth	Power	Modules
998	4.3E1					

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	213 Guidance/Navigation Antenna Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	320 1.1E1 77 18 18 1 1	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Directional		Hybrid	0	Redundant Channels				
Radio		Linear/Interface	0	Graceful Degrading				
Radio		Digital SSI/MSI	0	Degraded Modes				
Visual		Digital LSI & Memory	0	None				
Solid State		Microprocessor	0	SCREEN CLASS				
Transceiver		Total IC'S	0	JAN TXV	X			
Wide Band		Tubes	0	JAN TX	X			
Optoelectronic		Discretes	154	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	154	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	214 Guidance/Navigation Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	318 1.3E1 29 22 35 45	
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Alphanumeric		Hybrid	1	Redundant Channels				
Audible		Linear/Interface	23	Graceful Degrading				
CRT		Digital SSI/MSI	277	Degraded Modes				
Flat Panel		Digital LSI & Memory	0	None				
Manual		Microprocessor	0	SCREEN CLASS				
Mechanical		Total IC'S	301	JAN TXV	X			
Meter		Tubes	1	JAN TX	X			
Visual		Discretes	536	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	838	Commercial Grade				

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	215 Guidance/Navigation Receiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band	360 1.9E1 50 21 31 311		
DESIGN APPROACH/TECHNOLOGY				COOLING				
Radar Solid State Variable Frequency Flat Panel Manual Mechanical Meter Visual Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	256 317 1,696 312 0 2,581 0 1,855 4,436	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade				
===== MAJOR PARAMETERS =====								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	216 Controls/Displays Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area	15 0.4E0 15 3.6E1 15		
DESIGN APPROACH/TECHNOLOGY				COOLING				
Alphanumeric Closed Loop Control Display Electromechanical Graphic Interactive Servo Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	8 8 62 13 0 91 0 122 213	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade				
===== MAJOR PARAMETERS =====								



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	217	General Purpose Computer	Automated ON Line	Weight	6
CATEGORY	217	Controls/Displays	BIT Microprocessor	Automated OFF Line	Volume	0.1E0
EQUIPMENT TYPE	Controls/Displays	Indicator/Control	Software Controlled	Manual	Height	4
DERATING GUIDELINES	Indicator/Control	Not Reported	Hardware Controlled	Ambient Air	Width	5
SELF TEST CAPABILITY	Not Reported	Not Reported	Automated Print Out	Forced Air	Depth	6
REPLACEMENT LEVEL	Not Reported	Not Reported	Manual Read Panel	Liquid	Power	5
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====		===== INPUT RATE =====	
Alphanumeric	Electromechanical	Graphic	Hybrid	Redundant Channels	Output Rate	
Servo	Electromechanical	Graphic	Linear/Interface	Graceful Degrading	# of Keys	
Interactive	Graphic	Interactive	Digital SSI/MSI	Degraded Modes	# of Controls	2
Servo	Graphic	Servo	Digital LSI & Memory	None	Resolution	
Under 50 Volts	Interactive	Under 50 Volts	Microprocessor	SCREEN CLASS	# of Lines	
	Servo		Total IC'S	JAN TXV	# of Characters/Line	20
	Under 50 Volts		Tubes	JAN TX	Display Area	
			Discretes	JAN Grade	Display Diagonal	
			TOTAL ELEMENTS	Commercial Grade	# of Annunciators	
					Input Volts	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	218	General Purpose Computer	Automated ON Line	Weight	9
CATEGORY	218	Controls/Displays	BIT Microprocessor	Automated OFF Line	Volume	0.3E0
EQUIPMENT TYPE	Controls/Displays	Signal/Data	Software Controlled	Manual	Height	6
DERATING GUIDELINES	Signal/Data	Not Reported	Hardware Controlled	Ambient Air	Width	7
SELF TEST CAPABILITY	Not Reported	Not Reported	Automated Print Out	Forced Air	Depth	12
REPLACEMENT LEVEL	Not Reported	Not Reported	Manual Read Panel	Liquid	Power	10
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====		===== CLOCK FREQUENCY =====	
Dedicated	Digital	External Program	Hybrid	Redundant Channels	Clock Frequency	1.0E5
Servo	External Program	Servo	Linear/Interface	Graceful Degrading	Word Length	16
Electromechanical	Servo	Electromechanical	Digital SSI/MSI	Degraded Modes	Memory Size	1.6E1
Graphic	Electromechanical	Graphic	Digital LSI & Memory	None	Interrupt Levels	
Interactive	Graphic	Interactive	Microprocessor	SCREEN CLASS	Memory I/O Rate	
Servo	Interactive	Servo	Total IC'S	JAN TXV	# of Busses	
Under 50 Volts	Interactive	Under 50 Volts	Tubes	JAN TX	# of Registers	
	Servo		Discretes	JAN Grade	# of Accumulators	9
			TOTAL ELEMENTS	Commercial Grade	# of Input Ports	6
					# of Output Ports	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	219		General Purpose Computer		Automated ON line	Weight	34	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.7E0	
CATEGORY	Test Equipment		Software Controlled		Manual	Height	6	
EQUIPMENT TYPE			Hardware Controlled			Width	10	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth	21	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power	1.5E2	
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	25	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE	Frequency Band		
Analog			Hybrid	11	Redundant Channels	Frequency Accuracy		
Automated			Linear/Interface	31	Graceful Degrading	# of Tests		
Digital			Digital SSI/MSI	154	Degraded Modes			
Guidance/Navigation			Digital LSI & Memory	8	None			
Electromechanical			Microprocessor	0	SCREEN CLASS			
Graphic			Total IC's	204	JAN TXV			
Interactive			Tubes	0	JAN TX			
Servo			Discretes	38	JAN Grade			
Under 50 Volts			TOTAL ELEMENTS	242	Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	220		General Purpose Computer		Automated ON line	Weight	34	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.7E0	
CATEGORY	Test Equipment		Software Controlled		Manual	Height	6	
EQUIPMENT TYPE	Signal/Data		Hardware Controlled			Width	10	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth	21	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	21	
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE	Clock Frequency		
Analog			Hybrid	11	Redundant Channels	Word Length		
Digital			Linear/Interface	31	Graceful Degrading	Memory Size		
General Purpose			Digital SSI/MSI	154	Degraded Modes	Interrupt Levels		
Guidance/Navigation			Digital LSI & Memory	8	None	Memory I/O Rate		
Electromechanical			Microprocessor	0	SCREEN CLASS	# of Busses		
Graphic			Total IC's	204	JAN TXV	# of Registers		
Interactive			Tubes	0	JAN TX	# of Accumulators	8	
Servo			Discretes	383	JAN Grade	# of Input Ports	2	
Under 50 Volts			TOTAL ELEMENTS	587	Commercial Grade	# of Output Ports		

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	221	General Purpose Computer	Automated ON line	Weight				
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume				
CATEGORY	Test Equipment	Software Controlled	Manual	Height				
EQUIPMENT TYPE	Memory	Hardware Controlled	COOLING	Width				
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth				
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules				1
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Clock Frequency		
Magnetic Cassette Tape		Hybrid	Redundant Channels	Retrieval Time			Word Length	
Non Volatile		Linear/Interface	Graceful Degrading	Memory Size			I/O Rate	
General Purpose		Digital SSI/MSI	Degraded Modes	SCREEN CLASS				
Guidance/Navigation		Digital LSI & Memory	None	JAN TXV				
Electromechanical		Microprocessor		JAN TX				
Graphic		Total IC'S		JAN Grade				
Interactive		Tubes		Commercial Grade				
Servo		Discretes						
Under 50 Volts		TOTAL ELEMENTS						
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	222	General Purpose Computer	Automated ON line	Weight				45
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume				2.8E0
CATEGORY	Controls/Displays	Software Controlled	Manual	Height				31
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	COOLING	Width				14
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth				11
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	Forced Air	Power				7.2E1
REPLACEMENT LEVEL	Unit (LRU/SRU)		Liquid	Modules				5
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Input Rate		
Alphanumeric		Hybrid	Redundant Channels	Output Rate			# of Keys	
CRT		Linear/Interface	Graceful Degrading	# of Controls			Resolution	
Graphic		Digital SSI/MSI	Degraded Modes	# of Lines			# of Characters/Line	
Projection		Digital LSI & Memory	None	SCREEN CLASS			Display Area	
Visual		Microprocessor		JAN TXV			Display Diagonal	
Graphic		Total IC'S		JAN TX			# of Annunciators	
Interactive		Tubes		JAN Grade			Input Volts	
Servo		Discretes		Commercial Grade				
Under 50 Volts		TOTAL ELEMENTS						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	223 Controls/Displays Signal/Data Not Reported Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	18 0.5E0 12 11 7 Power 10	
DESIGN APPROACH/TECHNOLOGY Dedicated Digital Internal Semiconductor Memory Parity Checking Stored Program Synchronous Interactive Servo Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			3.5E4	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	224 Controls/Displays Indicator/Control Not Reported Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	4 0.1E0 5 5 5 Power 1 Input Rate Output Rate 5 Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	
DESIGN APPROACH/TECHNOLOGY Automatic Digital Internal Semiconductor Memory Parity Checking Stored Program Synchronous Interactive Servo Under 50 Volts				FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade				

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	225 Controls/Displays Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area	17 0.2E0 7 6 13 1.4E2 14		
DESIGN APPROACH/TECHNOLOGY				COOLING				
CRT Control Display Manual Meter Synchronous Interactive Servo Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 20 7 0 0 27 1 174 202	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	# of Characters/Line # of Controls Accuracy	4		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	226 Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	16 0.2E0 5 5 13 1.3E2 12		
DESIGN APPROACH/TECHNOLOGY				COOLING				
CRT Meter Visual Manual Meter Synchronous Interactive Servo Under 50 Volts		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 20 0 0 0 20 1 145 166	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	# of Characters/Line # of Controls Accuracy	115		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	227 Controls/Displays Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	1 0.1E0 1 6 5 2.0E0 2 2 4 4 115		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Manual		Hybrid	0	Redundant Channels				
Meter		Linear/Interface	0	Graceful Degradation				
Visual		Digital SSI/MSI	7	Degraded Modes				
Manual		Digital LSI & Memory	0	None				
Meter		Microprocessor	0	SCREEN CLASS				
Synchronous		Total IC'S	7	JAN TXV	X			
Intr-active		Tubes	0	JAN TX	X			
Servo		Discretes	29	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	36	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	228 Guidance/Navigation Not Reported Automated Bit Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	161 4.4E0 161 1.1E3 1.2E4 1.0E3 20 17 1.00 LF		
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				
Dead Reckoning		Hybrid	155	Redundant Channels				
Geographic Position		Linear/Interface	241	Graceful Degradation	X			
Gimballed		Digital SSI/MSI	1,147	Degraded Modes				
Inertial		Digital LSI & Memory	35	None				
Loran or Omega		Microprocessor	0	SCREEN CLASS				
Radio		Total IC'S	1,578	JAN TXV				
Interactive		Tubes	0	JAN TX	X			
Servo		Discretes	1,002	JAN Grade				
Under 50 Volts		TOTAL ELEMENTS	2,580	Commercial Grade				

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	229 Communications Not Reported Not Reported Piece Part	General Purpose Computer X BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	24 25 58 0 0 107 6 448 561	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade X Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	0.5E0 4 15 15 29 VHF 3.0E1 7.5E0 Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	
===== IMPLEMENTATION =====								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	230 Computer High Reliability Automated Bit Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	8 447 8,132 0 0 8,587 1 2,054 10,642	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air X Liquid FAULT TOLERANCE Redundant Channels X Graceful Degrading Degraded Modes X None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	3005 1.4E1 252 126 132 3.4E4 835 60 2.0E3 9 7	
===== IMPLEMENTATION =====								
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	230 Computer High Reliability Automated Bit Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	8 447 8,132 0 0 8,587 1 2,054 10,642	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air X Liquid FAULT TOLERANCE Redundant Channels X Graceful Degrading Degraded Modes X None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	3005 1.4E1 252 126 132 3.4E4 835 60 2.0E3 9 7	

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
231		Guidance/Navigation						General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band
								ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
								Hybrid	Redundant Channels	
								Linear/Interface	Graceful Degradation	
								Digital SSI/MSI	Degraded Modes	
								Digital LSI & Memory	None	
								Microprocessor	SCREEN CLASS	
								Total IC'S	JAN TXV	
								Tubes	JAN TX	X
								Discretes	JAN Grade	X
								TOTAL ELEMENTS	Commercial Grade	
232		Guidance/Navigation						General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width
								ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
								Hybrid	Redundant Channels	
								Linear/Interface	Graceful Degradation	
								Digital SSI/MSI	Degraded Modes	
								Digital LSI & Memory	None	
								Microprocessor	SCREEN CLASS	
								Total IC'S	JAN TXV	
								Tubes	JAN TX	X
								Discretes	JAN Grade	X
								TOTAL ELEMENTS	Commercial Grade	



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	233 Guidance/Navigation Transceiver Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	37 1.2E0 9 15 15 9.1E1
DESIGN APPROACH/TECHNOLOGY	Solid State Transponder Variable Frequency Tacan Frequency/Pulse Shift Keying Radio Secure Communication/Vocode Single Side Band Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	35 48 249 0 0 332 0 134 466	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade X Commercial Grade		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	234 Guidance/Navigation Computer (CPU) Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air X Liquid	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	39 0.6E0 8 11 14 3.2E2 1.0E6 16 4.8E4 16 5 5
DESIGN APPROACH/TECHNOLOGY	DMA Channel Dedicated Digital Int Processor Mag Core Memory Parallel Radio Secure Communication/Vocode Single Side Band Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	44 77 475 10 0 606 0 172 778	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade		

## EQUIPMENT CHARACTERIZATION

[illegible]

# EERD-2 EQUIPMENT RELIABILITY

IMPLEMENTATION			FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	237 Guidance/Navigation Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	8 0.2E0 8 6 8 7.7E1 Input Rate Output Rate 36 7 1 6 Display Area Display Diagonal # of Annunciators Input Volts
DESIGN APPROACH/TECHNOLOGY	Alphanumeric Electromechanical Flat Panel Keyboard Entry Mechanical Radio Secure Communication/Vocode Single Side Band Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	3 17 82 3 0 105 0 5 110			
IMPLEMENTATION			FAULT CONTROL		MAJOR PARAMETERS	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	238 Guidance/Navigation Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	2 0.1E1 3 6 5 1.6E1 Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts
DESIGN APPROACH/TECHNOLOGY	Alphanumeric Flat Panel Manual Keyboard Entry Mechanical Radio Secure Communication/Vocode Single Side Band Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 2 8 0 0 10 0 12 22			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	239			General Purpose Computer			Automated ON line	Weight			3
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.1E0
CATEGORY	Guidance/Navigation			Software Controlled			Manual	Height			3
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled			COOLING	Width			6
DERATING GUIDELINES	Not Reported			Automated Print Out			Ambient Air X	Depth			6
SELF TEST CAPABILITY	Not Reported			Manual Read Panel			Forced Air	Power			4.5E1
REPLACEMENT LEVEL	Not Reported						Liquid	Modules			4
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT			FAULT TOLERANCE	Input Rate			
Alphanumeric				Hybrid			Redundant Channels	Output Rate			
Flat Panel				Linear/Interface			Graceful Degrading	# of Keys			
Manual				Digital SSI/MSI			Degraded Modes	# of Controls			3
Keyboard Entry				Digital LSI & Memory			None	Resolution			
Mechanical				Microprocessor			SCREEN CLASS	# of Lines			3
Radio				Total IC'S			JAN TXV	# of Characters/Line			9
Secure Communication/Vocode				Tubes			JAN TX X	Display Area			
Single Side Band				Discretes			JAN Grade X	Display Diagonal			
Solid State				TOTAL ELEMENTS			Commercial Grade	# of Annunciators			
				113				Input Volts			
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	240			General Purpose Computer			Automated ON line	Weight			1
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.1E0
CATEGORY	Guidance/Navigation			Software Controlled			Manual	Height			2
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled			COOLING	Width			2
DERATING GUIDELINES	Not Reported			Automated Print Out			Ambient Air X	Depth			8
SELF TEST CAPABILITY	Not Reported			Manual Read Panel			Forced Air	Power			8.5E0
REPLACEMENT LEVEL	Not Reported						Liquid	Modules			4
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT			FAULT TOLERANCE	Input Rate			
Alphanumeric				Hybrid			Redundant Channels	Output Rate			
Flat Panel				Linear/Interface			Graceful Degrading	# of Keys			
Manual				Digital SSI/MSI			Degraded Modes	# of Controls			2
Keyboard Entry				Digital LSI & Memory			None	Resolution			
Mechanical				Microprocessor			SCREEN CLASS	# of Lines			2
Radio				Total IC'S			JAN TXV	# of Characters/Line			4
Secure Communication/Vocode				Tubes			JAN TX X	Display Area			
Single Side Band				Discretes			JAN Grade X	Display Diagonal			
Solid State				TOTAL ELEMENTS			Commercial Grade	# of Annunciators			
				23				Input Volts			

# BERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Automated OFF line	Weight	Volume	13
CATEGORY	241	Guidance/Navigation	BIT Microprocessor	Manual	Manual	0.2E0	6	
EQUIPMENT TYPE		Amplifier, Audio	Software Controlled		COOLING	Height	9	
DERATING GUIDELINES		Not Reported	Hardware Controlled			Width	7	
SELF TEST CAPABILITY		Not Reported	Automated Print Out		Ambient Air	Depth	7.0E0	
REPLACEMENT LEVEL		Not Reported	Manual Read Panel		Forced Air	Power	8	
					Liquid	Modules		
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Frequency Band		
			Hybrid	Redundant Channels		Gain		
			Linear/Interface	Graceful Degrading		Peak Power Out		
			Digital SSI/MSI	Degraded Modes		Average Power Out		
			Digital LSI & Memory	None		Duty Cycle		
			Microprocessor	SCREEN CLASS				
			Total IC'S	JAN TXV				
			Tubes	JAN TX	X			
			Discretes	JAN Grade	X			
			TOTAL ELEMENTS	Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	242	Guidance/Navigation	General Purpose Computer	Automated ON line	Automated OFF line	Weight	Volume	13
CATEGORY		Receiver	BIT Microprocessor	Manual	Manual	0.2E0	8	
EQUIPMENT TYPE		Not Reported	Software Controlled		COOLING	Height	4	
DERATING GUIDELINES		Not Reported	Hardware Controlled			Width	13	
SELF TEST CAPABILITY		Not Reported	Automated Print Out		Ambient Air	Depth	1.2E1	
REPLACEMENT LEVEL		Not Reported	Manual Read Panel		Forced Air	Power	12	
					Liquid	Modules		
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Sensitivity		
			Hybrid	Redundant Channels		# of Simultaneous		1
			Linear/Interface	Graceful Degrading		Channels		
			Digital SSI/MSI	Degraded Modes		Channel Width		
			Digital LSI & Memory	None		Digital Data Rate		
			Microprocessor	SCREEN CLASS		# of Selectable		
			Total IC'S	JAN TXV		Frequencies		
			Tubes	JAN TX	X	Frequency Band		LF
			Discretes	JAN Grade	X			
			TOTAL ELEMENTS	Commercial Grade				

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID			IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
PROGRAM ID								
CATEGORY								
EQUIPMENT TYPE								
DERATING GUIDELINES								
SELF TEST CAPABILITY								
REPLACEMENT LEVEL								
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT		FAULT TOLERANCE			
243	Guidance/Navigation	Interconnect/Distribute	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							# of Signals	
							Frequency Band	
							Power Level	
244	Computer	Not Reported	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	
245	Semiconductor	Secure Communication/Vocode	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	
246	Digital	General Purpose	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	
247	Magnetic Core	Parallel	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	
248	Secure Communication/Vocode	Single Side Band	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	
249	Solid State	Solid State	General Purpose Computer		Automated ON line		Weight	
			BIT Microprocessor		Automated OFF line		Volume	
			Software Controlled		Manual		Height	
			Hardware Controlled		COOLING		Width	
			Automated Print Out		Ambient Air		Depth	
			Manual Read Panel		Forced Air		Power	
					Liquid		Modules	
							Clock Frequency	
							Word Length	
							Memory Size	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Weight	Volume	Height	3
	245	Guidance/Navigation	Power	BIT Microprocessor	Hybrid	0	0	0.1E0			
		Filter	Digital	Software Controlled	Linear/Interface	0	0				
		Not Reported	General Purpose	Hardware Controlled	Digital SSI/MSI	0	0				
		Not Reported	Magnetic Core	Automated Print Out	Digital LSI & Memory	0	0				
		Not Reported	Parallel	Manual Read Panel	Microprocessor	0	0				
			Semiconductor								
			Secure Communication/Vocode								
			Single Side Band								
			Solid State								
				TOTAL ELEMENTS							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Weight	Volume	Height	3
	246	Communications	Power	BIT Microprocessor	Hybrid	36	48	7.0E7			
		Modulator/Demodulator	Digital	Software Controlled	Linear/Interface	0	0				
		Not Reported	Frequency Modulated	Hardware Controlled	Digital SSI/MSI	0	0				
		Automated Bit	Phase Shift Keying	Automated Print Out	Digital LSI & Memory	0	0				
		Piece Part	Radio Frequency	Manual Read Panel	Microprocessor	0	0				
			Solid State								
			Semiconductor								
			Secure Communication/Vocode								
			Single Side Band								
			Solid State								
				TOTAL ELEMENTS							

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====										===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	COOLING	Weight			
247	Radar	Not Reported	Semi Automated Bit Assembly (SRU)	Doppler	Electronically Steerable	Solid State	Surveillance/Search Tracking	BIT Microprocessor	Hybrid	94	219	207	0	0	1.0E6		
				Semiconductor	Secure Communication/Vocode	Single Side Band	Solid State	Software Controlled	Linear/Interface	219	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	0	1360		
								Hardware Controlled	Digital SSI/MSI	207	Degraded Modes	None	SCREEN CLASS	999.9			
								Automated Print Out	Digital LSI & Memory	0	None	JAN TXV	X	5.9E5			
								Manual Read Panel	Microprocessor	0	None	JAN TX	X	1.5E5			
									Total IC's	520	JAN TXV	X	Commercial Grade	240.0			
									Tubes	1	JAN TX	X	Commercial Grade	85.0			
									Discretes	1,490	JAN Grade	X	Commercial Grade	10.0			
									TOTAL ELEMENTS	2,011	Commercial Grade	X	Commercial Grade	Elev. Coverage/Angle			
														Target Size			
														Antenna Gain			
===== IMPLEMENTATION =====																	
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	COOLING	Weight			
249	Radar	Amplifier, RF Not Reported	Semi Automated Bit Assembly (SRU)	Solid State	Electronically Steerable	Solid State	Surveillance/Search Tracking	BIT Microprocessor	Hybrid	3	1	6	0	0	UHF		
				Semiconductor	Secure Communication/Vocode	Single Side Band	Solid State	Software Controlled	Linear/Interface	3	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	0	Gain		
								Hardware Controlled	Digital SSI/MSI	1	Degraded Modes	None	SCREEN CLASS	Peak Power Out			
								Automated Print Out	Digital LSI & Memory	6	None	JAN TXV	X	Average Power Out			
								Manual Read Panel	Microprocessor	0	None	JAN TX	X	Duty Cycle			
									Total IC's	0	JAN TXV	X	Commercial Grade				
									Tubes	10	JAN TX	X	Commercial Grade				
									Discretes	0	JAN Grade	X	Commercial Grade				
									TOTAL ELEMENTS	20	Commercial Grade	X	Commercial Grade				
										30							



## EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	251  Radar Power Supply Not Reported None Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel X	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading X Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight 400 Volume 1.2E1 Height 45 Width 20 Depth 23 Power Modules # of Outputs 2 Voltage Out # 1 5 Voltage Out # 2 32 Voltage Out # 3 Current Out # 1 Current Out # 2 Current Out # 3 Percent Regulation 1 Percent Regulation 2 Percent Regulation 3 Input Frequency Convert or Output Frequency
PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	252  Radar Test Circuitry Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual COOLING Ambient Air X Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules # of Signals 1 Accuracy Frequency Band UHF # of Annunciators

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
253	Radar	Receiver	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Reconfiguration Automated OFF line Reconfiguration Manual Reconfiguration  Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels X	
					Linear/Interface	Graceful Degradation	
					Digital SSI/MSI	Degraded Modes	
					Digital LSI & Memory	None	
					Microprocessor	SCREEN CLASS	
					Total IC's	JAN TXV X	
					Tubes	JAN TX X	
					Discretes	JAN Grade X	
					TOTAL ELEMENTS	Commercial Grade X	
254	Radar	Not Reported	Not Reported	Secure Communication/Vocode	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Fault Detection Automated OFF line Fault Isolation Manual Reconfiguration  Ambient Air Forced Air X Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels X	
					Linear/Interface	Graceful Degradation X	
					Digital SSI/MSI	Degraded Modes X	
					Digital LSI & Memory	None	
					Microprocessor	SCREEN CLASS	
					Total IC's	JAN TXV X	
					Tubes	JAN TX X	
					Discretes	JAN Grade X	
					TOTAL ELEMENTS	Commercial Grade	

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			General Purpose Computer			Automated ON line			Weight		
CATEGORY			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Software Controlled			Manual			Height		
DERATING GUIDELINES			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Automated Print Out			Ambient Air			Depth		
REPLACEMENT LEVEL			Manual Read Panel			Forced Air			Power		
						Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Frequency Band		
Continuous Wave			Hybrid			Redundant Channels			Peak Power Out		
Radar			Linear/Interface			Graceful Degradation			Average Power Out		
Single Side Band			Digital SSI/MSI			Degraded Modes			# of Simultaneous		
Solid State			Digital LSI & Memory			None			Channels		
Variable Frequency			Microprocessor			SCREEN CLASS			Channel Width		
Semiconductor			Total IC's			JAN TXV			Pulse Repetition		
Secure Communication/Vocode			Tubes			JAN TX			Frequency		
Single Side Band			Discretes			JAN Grade			Digital Data Rate		
Solid State			TOTAL ELEMENTS			Commercial Grade			# of Selectable		
						X			Frequencies		
						X			Frequency Stability		
									Duty Cycle		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
257	257	Digital	General Purpose Computer	Automated OFF line <th>Fault Isolation</th> <th>Volume</th> <th></th> <th></th>	Fault Isolation	Volume		
CATEGORY	Computer		BIT Microprocessor	Manual	COOLING	Height		
EQUIPMENT TYPE	Computer (CPU)		Software Controlled	Ambient Air		Width		
DERATING GUIDELINES	Not Reported		Hardware Controlled	Forced Air	X	Depth		
SELF TEST CAPABILITY	Automated Bit		Automated Print Out	Liquid		Power		
REPLACEMENT LEVEL	Not Reported		Manual Read Panel			Modules		
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		Clock Frequency		
			Hybrid	Redundant Channels	X	Word Length	16	
			Linear/Interface	Graceful Degrading		Memory Size	1.2E5	
			Digital SSI/MSI	Degraded Modes		Interrupt Levels		
			Digital LSI & Memory	None		Memory I/O Rate		
			Microprocessor	SCREEN CLASS		# of Busses	1.6E6	
			Total IC'S	JAN TXV		# of Registers	112	
			Tubes	JAN TX		# of Accumulators	240	
			Discretes	JAN Grade	X	# of Input Ports		
			TOTAL ELEMENTS	Commercial Grade	X	# of Output Ports		
			Not Reported					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
258	258	Digital	General Purpose Computer	Automated OFF line	Fault Isolation	Volume		
CATEGORY	Guidance/Navigation		BIT Microprocessor	Manual	COOLING	Height	18	
EQUIPMENT TYPE	Power Supply		Software Controlled	Ambient Air		Width	7	
DERATING GUIDELINES	Not Reported		Hardware Controlled	Forced Air	X	Depth	8	
SELF TEST CAPABILITY	Not Reported		Automated Print Out	Liquid		Power	0.3E0	
REPLACEMENT LEVEL	Not Reported		Manual Read Panel			Modules	3	
			ACTIVE ELEMENT COUNT	FAULT TOLERANCE		# of Outputs	16	
			Hybrid	Redundant Channels		Voltage Out # 1	5.2	
			Linear/Interface	Graceful Degrading		Voltage Out # 2	-19.1	
			Digital SSI/MSI	Degraded Modes		Voltage Out # 3	115	
			Digital LSI & Memory	None		Current Out # 1	6.25	
			Microprocessor	SCREEN CLASS		Current Out # 2	0.75	
			Total IC'S	JAN TXV		Current Out # 3	0.16	
			Tubes	JAN TX	X	Percent Regulation 1		
			Discretes	JAN Grade	X	Percent Regulation 2		
			TOTAL ELEMENTS	Commercial Grade		Percent Regulation 3		
			137			Input Frequency	400	
						Convert or Output Frequency		

EQUIPMENT ID	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
259	Digital	General Purpose Computer	Automated ON Line	Weight 850
PROGRAM ID	AC Output	BIT Microprocessor	Automated OFF Line	Volume 5.4E1
CATEGORY Radar	Between 50-150 Volts	Software Controlled	Manual	Height 78
EQUIPMENT TYPE Computer (CPU)	DC Output	Hardware Controlled	COOLING	Width 36
DERATING GUIDELINES Not Reported	Fixed Current Output	Automated Print Out	Ambient Air	Depth 33
SELF TEST CAPABILITY Not Reported	Fixed Voltage Output	Manual Read Panel	Forced Air X	Power
REPLACEMENT LEVEL Not Reported	Over Current Protection		Liquid	Modules
	Over Voltage Protection	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Clock Frequency
	Solid State	Hybrid	Redundant Channels	Word Length 10
		Linear/Interface	Graceful Degrading	Memory Size
		Digital SSI/MSI	Degraded Modes	Interrupt Levels
		Digital LSI & Memory	None	Memory I/O Rate
		Microprocessor	SCREEN CLASS	# of Busses
		Total IC'S	JAN TXV X	# of Registers
		Tubes	JAN TX X	# of Accumulators
		Discretes	JAN Grade X	# of Input Ports
		TOTAL ELEMENTS	Commercial Grade	# of Output Ports
260	Digital	General Purpose Computer	Automated ON Line	Weight 2800
PROGRAM ID	Serial	BIT Microprocessor	Automated OFF Line	Volume 1.8E2
CATEGORY Radar	Between 50-150 Volts	Software Controlled	Manual	Height 80
EQUIPMENT TYPE Computer (CPU)	DC Output	Hardware Controlled	COOLING	Width 122
DERATING GUIDELINES Not Reported	Fixed Current Output	Automated Print Out	Ambient Air	Depth 33
SELF TEST CAPABILITY Not Reported	Fixed Voltage Output	Manual Read Panel	Forced Air X	Power
REPLACEMENT LEVEL Not Reported	Over Current Protection		Liquid	Modules
	Over Voltage Protection	ACTIVE ELEMENT COUNT	FAULT TOLERANCE	Clock Frequency
	Solid State	Hybrid	Redundant Channels X	Word Length
		Linear/Interface	Graceful Degrading	Memory Size
		Digital SSI/MSI	Degraded Modes	Interrupt Levels
		Digital LSI & Memory	None	Memory I/O Rate
		Microprocessor	SCREEN CLASS	# of Busses
		Total IC'S	JAN TXV X	# of Registers
		Tubes	JAN TX	# of Accumulators
		Discretes	JAN Grade	# of Input Ports
		TOTAL ELEMENTS	Commercial Grade	# of Output Ports

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	261	General Purpose Computer		Automated ON line		Reconfiguration		Weight			
PROGRAM ID		BIT Microprocessor		Automated OFF line		Fault Isolation		Volume			
CATEGORY	Computer	Software Controlled		Manual		Reconfiguration		Height			
EQUIPMENT TYPE		Hardware Controlled		COOLING				Width			
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air				Depth			
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel		Forced Air		X		Power			
REPLACEMENT LEVEL	Not Reported			Liquid				Modules			
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Clock Frequency			
Digital		ACTIVE ELEMENT COUNT		Redundant Channels				Word Length			
External Program		Hybrid		Graceful Degrading				Memory Size			
General Purpose		Linear/Interface		Degraded Modes				Interrupt Levels			
Stored Program		Digital SSI/MSI		None				# of Busses			
Fixed Current Output		Digital LSI & Memory		SCREEN CLASS				Memory I/O Rate			
Fixed Voltage Output		Microprocessor		JAN TXV				# of Registers			
Over Current Protection		Total IC'S		JAN TX				# of Accumulators			
Over Voltage Protection		Tubes		JAN Grade				# of Input Ports			
Solid State		Discretes		Commercial Grade				# of Output Ports			
TOTAL ELEMENTS				Not Reported							

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	262	General Purpose Computer		Automated ON line		Reconfiguration		Weight			
PROGRAM ID		BIT Microprocessor		Automated OFF line		Fault Isolation		Volume			
CATEGORY	Computer	Software Controlled		Manual		Reconfiguration		Height			
EQUIPMENT TYPE	Computer (CPU)	Hardware Controlled		COOLING				Width			
DERATING GUIDELINES	Not Reported	Automated Print Out		Ambient Air				Depth			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel		Forced Air				Power			
REPLACEMENT LEVEL	Not Reported			Liquid				Modules			
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Clock Frequency			
Digital		ACTIVE ELEMENT COUNT		Redundant Channels				Word Length			
External Program		Hybrid		Graceful Degrading				Memory Size			
General Purpose		Linear/Interface		Degraded Modes				Interrupt Levels			
Stored Program		Digital SSI/MSI		None				Memory I/O Rate			
Fixed Current Output		Digital LSI & Memory		SCREEN CLASS				# of Busses			
Fixed Voltage Output		Microprocessor		JAN TXV				# of Registers			
Over Current Protection		Total IC'S		JAN TX				# of Accumulators			
Over Voltage Protection		Tubes		JAN Grade				# of Input Ports			
Solid State		Discretes		Commercial Grade				# of Output Ports			
TOTAL ELEMENTS				Not Reported							

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	263 Communications Modulator/Demodulator Not Reported Manual Bite Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Carrier Frequency Modulation Rate Modulation Baud Rate PRF Peak Volts Output # of Combined Signal	90 2.4E0 10 19 22 29 1.3E5			
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE					
Digital Frequency Division Multiplex Radio Frequency Secure Solid State Fixed Voltage Output Over Current Protection Over Voltage Protection Solid State	ACTIVE ELEMENT COUNT	0 						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	265 Computer Computer (CPU) Intermediate Reliability Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	60 2.0E5	
DESIGN APPROACH/TECHNOLOGY			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	X		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	266 Radar Frequency/Timing Gen. Commercial Design Stand. Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Detection COOLING X	Weight Volume Height Width Depth Power Modules Reference Frequency Frequency Drift Output Frequency Output Voltage Output Impedance		
DESIGN APPROACH/TECHNOLOGY			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	X		



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
267	267		BIT Microprocessor	X	Fault Isolation <td>340</td> <td></td> <td></td>	340		
CATEGORY	Radar		Software Controlled		Reconfiguration	4.4E1		
EQUIPMENT TYPE			Hardware Controlled		COOLING			
DERATING GUIDELINES	High Reliability		Automated Print Out					
SELF TEST CAPABILITY	Automated Bit		Manual Read Panel	X				
REPLACEMENT LEVEL	Unit (LRU/SRU)							
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
===== IMPLEMENTATION =====			ACTIVE ELEMENT COUNT	Redundant Channels	Graceful Degradation	Peak RF Power		
			Hybrid	76				
			Linear/Interface	730				
			Digital SSI/MSI	4,200	Degraded Modes	Average RF Power		
			Digital LSI & Memory	360	None	PRF		
			Microprocessor	2	SCREEN CLASS	AZ Coverage/Angle		
			Total IC'S	5,368		Scan Rate		
			Tubes	1	JAN TXV	Polarization		
			Discretes	1,070	JAN TX	Beam Width		
			TOTAL ELEMENTS	6,439	JAN Grade	Elev. Coverage/Angle		
					Commercial Grade	Target Size		
						Antenna Gain		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Fault Detection	Weight		
268	268		BIT Microprocessor		Fault Isolation <td>186</td> <td></td> <td></td>	186		
CATEGORY	Electronic Warfare		Software Controlled			2.3E0		
EQUIPMENT TYPE	Transceiver		Hardware Controlled		COOLING	11		
DERATING GUIDELINES	Intermediate Reliability		Automated Print Out			18		
SELF TEST CAPABILITY	Semi Automated Bit		Manual Read Panel	X		25		
REPLACEMENT LEVEL	Assembly (SRU)					8.5E2		
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
===== IMPLEMENTATION =====			ACTIVE ELEMENT COUNT	Redundant Channels	Graceful Degradation	Frequency Band <td></td> <td></td>		
			Hybrid	34		Peak Power Out		
			Linear/Interface	100		Average Power Out		
			Digital SSI/MSI	267	Degraded Modes	# of Selectable		
			Digital LSI & Memory	0	None	Frequencies		
			Microprocessor	0	SCREEN CLASS	Frequency Stability		
			Total IC'S	401	JAN TXV	Digital Data Rate		
			Tubes	14	JAN TX	Receiver Sensitivity		
			Discretes	347	JAN Grade	Pulse Repetition		
			TOTAL ELEMENTS	762	Commercial Grade	Frequency		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	269			General Purpose Computer	X			Automated ON line	Fault Detection	Weight	32
PROGRAM ID				BIT Microprocessor				Automated OFF line	Fault Isolation	Volume	1.0E0
CATEGORY	Guidance/Navigation			Software Controlled	X			Manual	Fault Isolation	Height	
EQUIPMENT TYPE				Hardware Controlled						Width	
DERATING GUIDELINES	Not Reported			Automated Print Out						Depth	
SELF TEST CAPABILITY	Semi Automated Bit			Manual Read Panel	X					Power	
REPLACEMENT LEVEL	Unit (LRU/SRU)									Modules	16
										Position Accuracy	2.4E4
										Range	8.0E3
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT						Way Points	9
Dead Reckoning				Hybrid	3					Destinations	8
Geographic Position				Linear/Interface	13					Velocity Accuracy	
Loran or Omega				Digital SSI/MSI	99					Height Accuracy	
Radio				Digital LSI & Memory	133					Heading Accuracy	
Radio				Microprocessor	1					Frequency Band	VLF
Pulse Compression				Total IC'S	249						
Surveillance/Search				Tubes	0						
Terrain Following/Avoidance				Discretes	73						
Tracking				TOTAL ELEMENTS	322						
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	270			General Purpose Computer	X			Automated ON line	Fault Detection	Weight	4
PROGRAM ID				BIT Microprocessor				Automated OFF line	Fault Isolation	Volume	0.1E0
CATEGORY	Guidance/Navigation			Software Controlled	X			Manual	Fault Isolation	Height	6
EQUIPMENT TYPE				Hardware Controlled						Width	6
DERATING GUIDELINES	Indicator/Control			Automated Print Out						Depth	7
SELF TEST CAPABILITY	Not Reported			Manual Read Panel	X					Power	
REPLACEMENT LEVEL	Semi Automated Bit									Modules	5
										Input Rate	
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT						Output Rate	
Alphanumeric				Hybrid	0					# of Keys	14
Keyboard Entry				Linear/Interface	0					# of Controls	5
Manual				Digital SSI/MSI	0					Resolution	
Radio				Digital LSI & Memory	27					# of Lines	
Radio				Microprocessor	30					# of Characters/Line	
Pulse Compression				Total IC'S	57					Display Area	6
Surveillance/Search				Tubes	0					Display Diagonal	
Terrain Following/Avoidance				Discretes	0					# of Annunciators	
Tracking				TOTAL ELEMENTS	57					Input Volts	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	271		Automated ON line		Weight	59		
PROGRAM ID			Automated OFF line		Volume	1.6E0		
CATEGORY	Controls/Displays		Manual		Height			
EQUIPMENT TYPE			COOLING		Width			
DERATING GUIDELINES	Not Reported		Ambient Air	X	Depth			
SELF TEST CAPABILITY	Not Reported		Forced Air		Power			
REPLACEMENT LEVEL	Not Reported		Liquid		Modules	29		
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Resolution		
Automatic Control			Redundant Channels	X		# of Character Lines		
Control			Graceful Degradation			Refresh		
Display			Degraded Modes			Operating Speed		
Flat Panel			None			Number of Keys		
Manual			SCREEN CLASS			Display Area		
Mechanical			JAN TXV	X		# of Characters/Line		
Meter			JAN TX	X		# of Controls	36	
Optoelectronic			JAN Grade			Accuracy		
Tracking			Commercial Grade					
ACTIVE ELEMENT COUNT								
Hybrid		3						
Linear/Interface		49						
Digital SSI/MSI		152						
Digital LSI & Memory		0						
Microprocessor		0						
Total IC's		204						
Tubes		0						
Discretes		379						
TOTAL ELEMENTS		583						
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	272		Automated ON line		Weight	9		
PROGRAM ID			Automated OFF line		Volume	0.3E0		
CATEGORY	Controls/Displays		Manual		Height	7		
EQUIPMENT TYPE	Indicator/Control		COOLING		Width	9		
DERATING GUIDELINES	Not Reported		Ambient Air	X	Depth	8		
SELF TEST CAPABILITY	Not Reported		Forced Air		Power			
REPLACEMENT LEVEL	Not Reported		Liquid		Modules	2		
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Input Rate		
Flat Panel			Redundant Channels			Output Rate		
Manual			Graceful Degradation			# of Keys		
Meter			Degraded Modes			# of Controls	34	
Optoelectronic			None			Resolution		
Visual			SCREEN CLASS			# of Lines		
Mechanical			JAN TXV	X		# of Characters/Line		
Meter			JAN TX	X		Display Area		
Optoelectronic			JAN Grade			Display Diagonal		
Tracking			Commercial Grade			# of Annunciators		
ACTIVE ELEMENT COUNT						Input Volts		
Hybrid		0						
Linear/Interface		9						
Digital SSI/MSI		32						
Digital LSI & Memory		0						
Microprocessor		0						
Total IC's		41						
Tubes		0						
Discretes		10						
TOTAL ELEMENTS		51						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	273 Controls/Displays Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	3 40 120 0 0 163 0 312 475	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels X Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	30 0.8E0 10 16 9 Power 16	
DESIGN APPROACH/TECHNOLOGY								
Manual Mechanical Meter Optoelectronic Visual Mechanical Meter Optoelectronic Tracking								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	274 Controls/Displays Indicator/Control Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 0 0 7 7	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels X Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	2 0.1E0 4 3 6 Power 1	
DESIGN APPROACH/TECHNOLOGY								
Automatic Mechanical Meter Optoelectronic Visual Mechanical Meter Optoelectronic Tracking								

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	275		General Purpose Computer	Automated ON line	Weight	1		
PROGRAM ID			BIT Microprocessor	Automated OFF line	Volume	0.1E0		
CATEGORY			Software Controlled	Manual	Height	4		
EQUIPMENT TYPE	Controls/Displays		Hardware Controlled	COOLING	Width	3		
DERATING GUIDELINES	Indicator/Control		Automated Print Out	Ambient Air X	Depth	6		
SELF TEST CAPABILITY	Not Reported		Manual Read Panel	Forced Air	Power			
REPLACEMENT LEVEL	Not Reported			Liquid	Modules	1		
===== DESIGN APPROACH/TECHNOLOGY =====			ACTIVE ELEMENT COUNT	FAULT TOLERANCE				
Automatic			Hybrid	Redundant Channels	# of Keys			
Mechanical			Linear/Interface	Graceful Degrading	# of Controls			
Meter			Digital SSI/MSI	Degraded Modes	Resolution			
Optoelectronic			Digital LSI & Memory	None	# of Lines			
Visual			Microprocessor	SCREEN CLASS	# of Characters/Line			
Mechanical			Total IC'S	JAN TXV	Display Area			
Meter			Tubes	JAN TX X	Display Diagonal			
Optoelectronic			Discretes	JAN Grade	# of Annunciators			
Tracking			TOTAL ELEMENTS	Commercial Grade	Input Volts			
===== IMPLEMENTATION =====			ACTIVE ELEMENT COUNT	FAULT TOLERANCE				
General Purpose Computer			Hybrid	Redundant Channels	# of Characters/Line			
BIT Microprocessor			Linear/Interface	Graceful Degrading	Refresh			
Software Controlled			Digital SSI/MSI	Degraded Modes	Operating Speed			
Hardware Controlled			Digital LSI & Memory	None	Number of Keys			
Automated Print Out			Microprocessor	SCREEN CLASS	Display Area			
Manual Read Panel			Total IC'S	JAN TXV X	# of Controls			
			Tubes	JAN TX X	Accuracy			
			Discretes	JAN Grade				
			TOTAL ELEMENTS	Commercial Grade				

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	277		General Purpose Computer		Automated ON line	Weight		
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	9.7E0	
CATEGORY	Communications		Software Controlled		Manual	Height	52	
EQUIPMENT TYPE			Hardware Controlled			Width	17	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth	19	
SELF TEST CAPABILITY	Not Reported		Manual Read Panel		Forced Air	Power	9.7E2	
REPLACEMENT LEVEL	Not Reported				Liquid	Modules	45	
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== Frequency Band =====		
Audio/Voice			Hybrid	128	FAULT TOLERANCE			
Digital Data			Linear/Interface	42	Redundant Channels	Range		
Solid State			Digital SSI/MSI	3,833	Graceful Degradation	Peak RF Power		
Electromechanical			Digital LSI & Memory	0	Degraded Modes	Average RF Power		
Graphic			Microprocessor	0	None	Simultaneous Channel	15	
Head Up			Total IC'S	4,003		Channel Width		
Projection			Tubes	0		Receiver Sensitivity		
Optoelectronic			Discretes	628		Maximum Baud Rate	1.0E7	
Tracking			TOTAL ELEMENTS	4,631		Minimum Baud Rate	1.6E2	
						# of Selectable Freq		
						Frequency Stability		
						Duty Cycle		
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	278		General Purpose Computer		Automated ON line	Weight	25	
PROGRAM ID			BIT Microprocessor	X	Automated OFF line	Volume	0.6E0	
CATEGORY	Guidance/Navigation		Software Controlled		Manual	Height	8	
EQUIPMENT TYPE	Signal/Data		Hardware Controlled	X		Width	7	
DERATING GUIDELINES	Not Reported		Automated Print Out		Ambient Air	Depth	20	
SELF TEST CAPABILITY	Semi Automated Bit		Manual Read Panel	X	Forced Air	Power		
REPLACEMENT LEVEL	Unit (LRU/SRU)				Liquid	Modules	10	
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== Clock Frequency =====		
Dedicated			Hybrid	3	FAULT TOLERANCE			
Digital			Linear/Interface	13	Redundant Channels	Word Length		
Solid State			Digital SSI/MSI	72	Graceful Degradation	Memory Size		
Electromechanical			Digital LSI & Memory	103	Degraded Modes	Interrupt Levels		
Graphic			Microprocessor	1	None	Memory I/O Rate		
Head Up			Total IC'S	192		# of Busses		
Projection			Tubes	0		# of Registers		
Optoelectronic			Discretes	51		# of Accumulators		
Tracking			TOTAL ELEMENTS	243		# of Input Ports	6	
						# of Output Ports	10	

# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
PROGRAM ID			General Purpose Computer			Automated ON line			Weight		
CATEGORY			BIT Microprocessor			Automated OFF line			Volume		
EQUIPMENT TYPE			Software Controlled			Manual			Height		
DERATING GUIDELINES			Hardware Controlled			COOLING			Width		
SELF TEST CAPABILITY			Automated Print Out			Ambient Air			Depth		
REPLACEMENT LEVEL			Manual Read Panel			Forced Air			Power		
			Unit (LRU/SRU)			Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			# of Signals		
Active			Hybrid			Redundant Channels			Frequency Band		
Signal			Linear/Interface			Graceful Degrading			Power Level		
Solid State			Digital SSI/MSI			Degraded Modes					
Electromechanical			Digital LSI & Memory			None					
Graphic			Microprocessor			SCREEN CLASS					
Head Up			Total IC'S			JAN TXV					
Projection			Tubes			JAN TX					
Optoelectronic			Discretes			JAN Grade					
Tracking			TOTAL ELEMENTS			Commercial Grade					
EQUIPMENT ID			General Purpose Computer			Automated ON line			Weight		
PROGRAM ID			BIT Microprocessor			Automated OFF line			Volume		
CATEGORY			Software Controlled			Manual			Height		
EQUIPMENT TYPE			Hardware Controlled			COOLING			Width		
DERATING GUIDELINES			Automated Print Out			Ambient Air			Depth		
SELF TEST CAPABILITY			Manual Read Panel			Forced Air			Power		
REPLACEMENT LEVEL						Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY			ACTIVE ELEMENT COUNT			FAULT TOLERANCE			Frequency Band		
Audio/Voice			Hybrid			Redundant Channels			Range		
Digital Data			Linear/Interface			Graceful Degrading			Peak RF Power		
Solid State			Digital SSI/MSI			Degraded Modes			Average RF Power		
Electromechanical			Digital LSI & Memory			None			Simultaneous Channel		
Graphic			Microprocessor			SCREEN CLASS			Channel Width		
Head Up			Total IC'S			JAN TXV			Receiver Sensitivity		
Projection			Tubes			JAN TX			Maximum Baud Rate		
Optoelectronic			Discretes			JAN Grade			Minimum Baud Rate		
Tracking			TOTAL ELEMENTS			Commercial Grade			# of Selectable Freq		
									Frequency Stability		
									Duty Cycle		

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	281 Electronic Warfare Transceiver Not Reported Semi Automated Bit Assembly (SRU)	DESIGN APPROACH/TECHNOLOGY ECN-EV Tube Variable Frequency Electromechanical Graphic Head Up Projection Optoelectronic Tracking	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Selectable Frequencies Frequency Stability Digital Data Rate Receiver Sensitivity Pulse Repetition Frequency	186 2.3E0 11 18 25 8.5E2 2	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	282 Electronic Warfare Intermediate Reliability Semi Automated Bit Unit (LRU/SRU)	DESIGN APPROACH/TECHNOLOGY Active Multichannel/Multifrequency Multimode Capability Traveling Wave Tube Graphic Head Up Projection Optoelectronic Tracking	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power	412 7.7E0 4.7E3 SHF	



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Automated OFF line	Manual	Weight	Volume	Height	Width
283		Electronic Warfare	ECM-EW	BIT Microprocessor				70	1.2E0		
		Receiver	Tube	Software Controlled							
		High Reliability	Variable Frequency	Hardware Controlled							
		Semi Automated Bit	Traveling Wave Tube	Automated Print Out							
		Assembly (SRU)	Graphic	Manual Read Panel							
			Head Up								
			Projection								
			Optoelectronic								
			Tracking								
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	Automated ON line	Automated OFF line	Manual	Weight	Volume	Height	Width
284		Electronic Warfare	ECM-EW	BIT Microprocessor				61	1.2E0		
		Receiver	Tube	Software Controlled							
		High Reliability	Variable Frequency	Hardware Controlled							
		Semi Automated Bit	Traveling Wave Tube	Automated Print Out							
		Assembly (SRU)	Graphic	Manual Read Panel							
			Head Up								
			Projection								
			Optoelectronic								
			Tracking								

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===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	ACTIVE ELEMENT COUNT	Hybrid	Linear/Interface	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	Total IC'S	Tubes	Discretes	TOTAL ELEMENTS	Automated ON line	Automated OFF line	Manual	Ambient Air	Forced Air	Liquid	Redundant Channels	Graceful Degradation	Degraded Modes	None	SCREEN CLASS	JAN TXV	JAN TX	JAN Grade	Commercial Grade	Weight	Volume	Height	Width	Depth	Power	Modules	Sensitivity	# of Simultaneous Channels	Channel Width	Digital Data Rate	# of Selectable Frequencies	Frequency Band																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
285		Electronic Warfare Receiver	High Reliability	Semi Automated Bit Assembly (SRU)				General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	1	117	194	0	0	312	4	1,169	1,485																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	287		General Purpose Computer		Automated ON line	Weight	67	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.0E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height		
EQUIPMENT TYPE	Amplifier, RF		Hardware Controlled			Width		
DERATING GUIDELINES	Intermediate Reliability		Automated Print Out		Ambient Air	Depth		
SELF TEST CAPABILITY	Semi Automated Bit		Manual Read Panel		Forced Air	Power	1.7E3	
REPLACEMENT LEVEL	Assembly (SRU)				Liquid	Modules		
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== FAULT TOLERANCE =====		
Tube			Hybrid	3	Redundant Channels	Gain		
Tube			Linear/Interface	7	Graceful Degrading	Peak Power Out		
Variable Frequency			Digital SSI/MSI	8	Degraded Modes	Average Power Out		
Traveling Wave Tube			Digital LSI & Memory	0	None	Duty Cycle		
Graphic			Microprocessor	0				
Head Up			Total IC'S	18	JAN TXV			
Projection			Tubes	4	JAN TX			
Optoelectronic			Discretes	350	JAN Grade			
Tracking			TOTAL ELEMENTS	372	Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	288		General Purpose Computer		Automated ON line	Weight	68	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	1.0E0	
CATEGORY	Electronic Warfare		Software Controlled		Manual	Height		
EQUIPMENT TYPE	Amplifier, RF		Hardware Controlled			Width		
DERATING GUIDELINES	Intermediate Reliability		Automated Print Out		Ambient Air	Depth		
SELF TEST CAPABILITY	Semi Automated Bit		Manual Read Panel		Forced Air	Power	1.5E3	
REPLACEMENT LEVEL	Assembly (SRU)				Liquid	Modules		
===== DESIGN APPROACH/TECHNOLOGY =====			===== ACTIVE ELEMENT COUNT =====			===== FAULT TOLERANCE =====		
Tube			Hybrid	3	Redundant Channels	Gain		
Tube			Linear/Interface	7	Graceful Degrading	Peak Power Out		
Variable Frequency			Digital SSI/MSI	8	Degraded Modes	Average Power Out		
Traveling Wave Tube			Digital LSI & Memory	0	None	Duty Cycle		
Graphic			Microprocessor	0				
Head Up			Total IC'S	18	JAN TXV			
Projection			Tubes	4	JAN TX			
Optoelectronic			Discretes	350	JAN Grade			
Tracking			TOTAL ELEMENTS	372	Commercial Grade			

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
289		Electronic Warfare	Indicator/Control	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air X Forced Air Liquid	Weight 2 Volume 0.1E0 Height Width Depth Power 3.3E1 Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid 0	Redundant Channels	
					Linear/Interface 0	Graceful Degrading	
					Digital SSI/MSI 0	Degraded Modes	
					Digital LSI & Memory 0	None	
					Microprocessor 0	SCREEN CLASS	
					Total IC'S 0	JAN TXV X	
					Tubes 0	JAN TX X	
					Discretes 28	JAN Grade	
					TOTAL ELEMENTS 28	Commercial Grade	
290		Electronic Warfare	Indicator/Control	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON Line Automated OFF Line Manual  Ambient Air Forced Air Liquid X	Weight 670 Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid 169	Redundant Channels	
					Linear/Interface 238	Graceful Degrading	
					Digital SSI/MSI 1,384	Degraded Modes	
					Digital LSI & Memory 199	None	
					Microprocessor 0	SCREEN CLASS	
					Total IC'S 1,990	JAN TXV	
					Tubes 6	JAN TX X	
					Discretes 729	JAN Grade X	
					TOTAL ELEMENTS 2,725	Commercial Grade	

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	291	General Purpose Computer	Automated ON line	Weight	96			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	6.4E0			
CATEGORY	Electronic Warfare	Software Controlled	Manual	Height	20			
EQUIPMENT TYPE	Transmitter	Hardware Controlled	COOLING	Width	12			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	46			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules				
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Frequency Band		
Not Reported		ACTIVE ELEMENT COUNT	Redundant Channels	Peak Power Out				
Tube		Hybrid	Graceful Degrading	Average Power Out				
Variable Frequency		Linear/Interface	Degraded Modes	# of Simultaneous Channels				
Traveling Wave Tube		Digital SSI/MSI	None	Channel Width				
Graphic		Digital LSI & Memory	SCREEN CLASS	Pulse Repetition				
Head Up		Microprocessor		Frequency				
Projection		Total IC'S	JAN TXV	Digital Data Rate				
Optoelectronic		Tubes	JAN TX	# of Selectable				
Tracking		Discretes	JAN Grade	Frequency Stabilities				
		TOTAL ELEMENTS	Commercial Grade	Duty Cycle				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	292	General Purpose Computer	Automated ON line	Weight	100			
PROGRAM ID		BIT Microprocessor	Automated OFF line	Volume	6.4E0			
CATEGORY	Electronic Warfare	Software Controlled	Manual	Height	20			
EQUIPMENT TYPE	Transmitter	Hardware Controlled	COOLING	Width	12			
DERATING GUIDELINES	Not Reported	Automated Print Out	Ambient Air	Depth	46			
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Forced Air	Power				
REPLACEMENT LEVEL	Not Reported		Liquid	Modules				
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE			Frequency Band		
Not Reported		ACTIVE ELEMENT COUNT	Redundant Channels	Peak Power Out				
Tube		Hybrid	Graceful Degrading	Average Power Out				
Variable Frequency		Linear/Interface	Degraded Modes	# of Simultaneous Channels				
Traveling Wave Tube		Digital SSI/MSI	None	Channel Width				
Graphic		Digital LSI & Memory	SCREEN CLASS	Pulse Repetition				
Head Up		Microprocessor		Frequency				
Projection		Total IC'S	JAN TXV	Digital Data Rate				
Optoelectronic		Tubes	JAN TX	# of Selectable				
Tracking		Discretes	JAN Grade	Frequency Stabilities				
		TOTAL ELEMENTS	Commercial Grade	Duty Cycle				

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	293 Electronic Warfare Transmitter Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Not Reported Tube Variable Frequency Traveling Wave Tube Graphic Head Up Projection Optoelectronic Tracking	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Simultaneous Channels Channel Width Pulse Repetition Frequency Digital Data Rate # of Selectable Frequencies Frequency Stability Duty Cycle	82 3.5E0 20 12 25  X
			FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	294 Electronic Warfare Antenna Not Reported Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY Not Reported Tube Variable Frequency Traveling Wave Tube Graphic Head Up Projection Optoelectronic Tracking	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	19 0.8E0 10 10 18  X
			FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade					

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
295		Electronic Warfare		Not Reported	General Purpose Computer	Automated ON Line	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width
		Antenna		Tube	BITS Microprocessor	Automated OFF Line	8 2.0EO 15 15 15
		Not Reported		Variable Frequency	Software Controlled	Manual	
		Not Reported		Traveling Wave Tube	Hardware Controlled		
		Not Reported		Graphic	Automated Print Out	COOLING	
		Not Reported		Head Up	Manual Read Panel	Ambient Air Forced Air Liquid X	
				Projection			
				Optoelectronic Tracking			
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels	
					Linear/Interface	Graceful Degradation	
					Digital SSI/MSI	Degraded Modes	
					Digital LSI & Memory	None	
					Microprocessor	SCREEN CLASS	
					Total IC'S	JAN TXV	
					Tubes	JAN TX	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	
296		Electronic Warfare		Not Reported	General Purpose Computer	Automated ON Line	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width
		Antenna		Tube	BITS Microprocessor	Automated OFF Line	8 0.3EO 5 5 19
		Not Reported		Variable Frequency	Software Controlled	Manual	
		Not Reported		Traveling Wave Tube	Hardware Controlled		
		Not Reported		Graphic	Automated Print Out	COOLING	
		Not Reported		Head Up	Manual Read Panel	Ambient Air Forced Air Liquid X	
				Projection			
				Optoelectronic Tracking			
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels	
					Linear/Interface	Graceful Degradation	
					Digital SSI/MSI	Degraded Modes	
					Digital LSI & Memory	None	
					Microprocessor	SCREEN CLASS	
					Total IC'S	JAN TXV	
					Tubes	JAN TX	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	ACTIVE ELEMENT COUNT	FAULT CONTROL	MAJOR PARAMETERS
297		Electronic Warfare	Indicator/Control	Not Reported	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	33 36 349 44 0 462 0 75 537	Automated ON Line Automated OFF Line Manual  Ambient Air Forced Air Liquid X	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts
298		Electronic Warfare	Interconnect/Distribute	Not Reported	Not Reported	Not Reported	Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	0 0 0 0 0 0 0 2 2	Automated ON Line Automated OFF Line Manual  Ambient Air Forced Air Liquid X	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level



# BERD-2 EQUIPMENT RELIABILITY

===== DESIGN APPROACH/TECHNOLOGY =====			===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Weight
299		Electronic Warfare	Cooling/Press./Vacuum	Not Reported	Not Reported	Not Reported	BIT Microprocessor	1	Manual	Manual	153
							Software Controlled	0			6.4E0
							Hardware Controlled	0			20
							Automated Print Out	0			12
							Manual Read Panel	0			46
===== DESIGN APPROACH/TECHNOLOGY =====			===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Weight
300		Electronic Warfare	Cooling/Press./Vacuum	Not Reported	Not Reported	Not Reported	BIT Microprocessor	1	Manual	Manual	77
							Software Controlled	0			3.0E0
							Hardware Controlled	0			20
							Automated Print Out	0			12
							Manual Read Panel	0			25
===== DESIGN APPROACH/TECHNOLOGY =====			===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Weight
300		Electronic Warfare	Cooling/Press./Vacuum	Not Reported	Not Reported	Not Reported	BIT Microprocessor	1	Manual	Manual	77
							Software Controlled	0			3.0E0
							Hardware Controlled	0			20
							Automated Print Out	0			12
							Manual Read Panel	0			25

## EQUIPMENT CHARACTERIZATION

[illegible]

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	303 Computer Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	1.1E4				
DESIGN APPROACH/TECHNOLOGY	General Purpose Magnetic Core Magnetic Disk Pack Multiprocessor Parallel Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	FAULT TOLERANCE	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	6.6E4 1.0E3					
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	304 Computer Memory Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Clock Frequency Retrieval Time Word Length Memory Size I/O Rate	0.15 256 256				
DESIGN APPROACH/TECHNOLOGY	Magnetic Disk Parallel Semiconductor Multiprocessor Parallel Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Not Reported	FAULT TOLERANCE	Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY	305 Computer	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts			
EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	Indicator/Control Not Reported Not Reported Not Reported			COOLING				
DESIGN APPROACH/TECHNOLOGY	Not Reported Parallel Semiconductor Multiprocessor Parallel Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS Not Reported	FAULT TOLERANCE	Ambient Air Forced Air X Liquid				
			Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS					
			JAN TXV JAN TX JAN Grade Commercial Grade X					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY	306 Computer	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports			
EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	Computer (CPU) Not Reported Not Reported Not Reported			COOLING				
DESIGN APPROACH/TECHNOLOGY	Digital Error Correcting External Program General Purpose Parallel Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS Not Reported	FAULT TOLERANCE	Ambient Air Forced Air X Liquid				
			Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS					
			JAN TXV JAN TX JAN Grade Commercial Grade X					

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	307 Computer Signal/Data Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	32 1.0E3
DESIGN APPROACH/TECHNOLOGY DMA Channel General Purpose Internal Semiconductor Memory Parallel Stored Program Radio Secure Communication/Vocode Simplex Solid State						
===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	308 Computer I/O Device Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON Line Automated OFF Line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	
DESIGN APPROACH/TECHNOLOGY CRT Interactive Keyboard Manual Control Visual Radio Secure Communication/Vocode Simplex Solid State						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	309 Computer Signal/Data Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	256	
DESIGN APPROACH/TECHNOLOGY	Dedicated Digital Internal Semiconductor Memory Parallel Stored Program Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 0 0 Not Reported	Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	X			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	312 Guidance/Navigation High Reliability Not Reported Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	12 0.3E0	
DESIGN APPROACH/TECHNOLOGY	Multichannel/Multifrequency Omnidirectional VOR/DME Parallel Stored Program Radio Secure Communication/Vocode Simplex Solid State	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 29 28 0 0 57 0 141 198	Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	X			

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	313	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	10					
PROGRAM ID		BIT Microprocessor	0	Automated OFF line	Volume	0.3E0					
CATEGORY	Guidance/Navigation	Software Controlled	Hybrid	Manual	Height	5					
EQUIPMENT TYPE	Receiver	Hardware Controlled	Linear/Interface		Width	7					
DERATING GUIDELINES	Not Reported	Automated Print Out	Digital SSI/MSI	Ambient Air X	Depth	13					
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Digital LSI & Memory	Forced Air	Power						
REPLACEMENT LEVEL	Piece Part		Microprocessor	Liquid	Modules						
DESIGN APPROACH/TECHNOLOGY					Sensitivity						
Multichannel/Multifrequency			Hybrid		# of Simultaneous						
Solid State			Linear/Interface	Redundant Channels	Channels						
VOR/DME			Digital SSI/MSI	Graceful Degrading	Channel Width						
Parallel			Digital LSI & Memory	Degraded Modes	Digital Data Rate						
Stored Program			Microprocessor	None X	# of Selectable						
Radio			Total IC'S	SCREEN CLASS	Frequencies						
Secure Communication/Vocode			Tubes	JAN TXV	Frequency Band						
Simplex			Discretes	JAN TX X							
Solid State			TOTAL ELEMENTS	JAN Grade X							
			198	Commercial Grade							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	314	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	2					
PROGRAM ID		BIT Microprocessor	0	Automated OFF line	Volume	0.1E0					
CATEGORY	Guidance/Navigation	Software Controlled	Hybrid	Manual	Height	3					
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	Linear/Interface		Width	6					
DERATING GUIDELINES	Not Reported	Automated Print Out	Digital SSI/MSI	Ambient Air X	Depth	5					
SELF TEST CAPABILITY	Not Reported	Manual Read Panel	Digital LSI & Memory	Forced Air	Power						
REPLACEMENT LEVEL	Piece Part		Microprocessor	Liquid	Modules	1					
DESIGN APPROACH/TECHNOLOGY					Input Rate						
Manual			Hybrid		Output Rate						
Visual			Linear/Interface	Redundant Channels	# of Keys						
VOR/DME			Digital SSI/MSI	Graceful Degrading	# of Controls						
Parallel			Digital LSI & Memory	Degraded Modes	Resolution						
Stored Program			Microprocessor	None X	# of Lines						
Radio			Total IC'S	SCREEN CLASS	# of Characters/Line						
Secure Communication/Vocode			Tubes	JAN TXV	Display Area						
Simplex			Discretes	JAN TX	Display Diagonal						
Solid State			TOTAL ELEMENTS	JAN Grade	# of Annunciators						
			0	Commercial Grade	Input Volts						



EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
315				Fixed Frequency Radar VOR/DME Parallel Stored Program Radio Secure Communication/Vocode Simplex Solid State	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels	
					Linear/Interface	Graceful Degrading	
					Digital SSI/MSI	Degraded Modes	
					Digital LSI & Memory	None X	
					Microprocessor	SCREEN CLASS	
					Total IC's	JAN TXV	
					Tubes	JAN TX X	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	
316				Fixed Frequency Radar VOR/DME Parallel Stored Program Radio Secure Communication/Vocode Simplex Solid State	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air Forced Air X Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain
					ACTIVE ELEMENT COUNT	FAULT TOLERANCE	
					Hybrid	Redundant Channels	
					Linear/Interface	Graceful Degrading	
					Digital SSI/MSI	Degraded Modes	
					Digital LSI & Memory	None X	
					Microprocessor	SCREEN CLASS	
					Total IC's	JAN TXV	
					Tubes	JAN TX X	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	317 Radar Antenna High Reliability Automated Bit Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration COOLING X X X	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	61 3.5E0 20 17 18 5 5	
DESIGN APPROACH/TECHNOLOGY			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 94 0 95 189	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	318 Radar Receiver High Reliability Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Reconfiguration COOLING X X X	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band	48 1.1E0 12 7 22 12	
DESIGN APPROACH/TECHNOLOGY			Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 337 0 182 519	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	319	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Reconfiguration	Weight	69				
PROGRAM ID		BIT Microprocessor	0	Automated OFF line		Volume	1.5E0				
CATEGORY	Radar	Software Controlled	Hybrid	Manual		Height	12				
EQUIPMENT TYPE	Transmitter	Hardware Controlled	Linear/Interface		COOLING	Width	11				
DERATING GUIDELINES	High Reliability	Automated Print Out	Digital SSI/MSI	Ambient Air		Depth	19				
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	Digital LSI & Memory	Forced Air	X	Power					
REPLACEMENT LEVEL	Assembly (SRU)		Microprocessor	Liquid		Modules	12				
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Frequency Band			
Radar				Redundant Channels		Peak Power Out		Average Power Out			
Traveling Wave Tube			0	Graceful Degrading		# of Simultaneous Channels		# of Simultaneous Channels			
Radar			0	Degraded Modes		Channel Width		Pulse Repetition			
Parallel			0	None	X	Frequency		Digital Data Rate			
Stored Program			0	SCREEN CLASS		# of Selectable		Frequencies			
Radio			51	JAN TXV		Frequency Stability		Duty Cycle			
Secure Communication/Vocode			1	JAN TX	X						
Simplex			197	JAN Grade	X						
Solid State			249	Commercial Grade							
TOTAL ELEMENTS											
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	320	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line		Weight	63				
PROGRAM ID		BIT Microprocessor	0	Automated OFF line		Volume	1.0E0				
CATEGORY	Radar	Software Controlled	Hybrid	Manual		Height	11				
EQUIPMENT TYPE	Signal/Data	Hardware Controlled	Linear/Interface		COOLING	Width	7				
DERATING GUIDELINES	High Reliability	Automated Print Out	Digital SSI/MSI	Ambient Air		Depth	23				
SELF TEST CAPABILITY	Automated Bit	Manual Read Panel	Digital LSI & Memory	Forced Air	X	Power					
REPLACEMENT LEVEL	Assembly (SRU)		Microprocessor	Liquid		Modules	36				
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Clock Frequency			
Dedicated				Redundant Channels		Word Length		Memory Size			
Digital			0	Graceful Degrading		Interrupt Levels		Memory I/O Rate			
Radar			0	Degraded Modes		# of Busses		# of Registers			
Parallel			0	None	X	# of Accumulators		# of Input Ports			
Stored Program			0	SCREEN CLASS		# of Output Ports					
Radio			2,340	JAN TXV							
Secure Communication/Vocode			0	JAN TX	X						
Simplex			112	JAN Grade	X						
Solid State			2,452	Commercial Grade							
TOTAL ELEMENTS											

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	323 Controls/Displays High Reliability Not Reported Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	13 64 848 44 0 969 1 366 1,336	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area # of Characters/Line # of Controls Accuracy	56 1.9E0    3.5E2 27      12  				
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	324 Controls/Displays Amplifier, Video High Reliability Not Reported Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	13 52 848 44 0 957 0 247 1,204	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Gain Peak Power Out Average Power Out Duty Cycle	23 0.6E0 8 8 18 2.5E2 18         				
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	323 Controls/Displays High Reliability Not Reported Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	13 52 848 44 0 957 0 247 1,204	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Gain Peak Power Out Average Power Out Duty Cycle	23 0.6E0 8 8 18 2.5E2 18         				

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	325 Controls/Displays Indicator/Control High Reliability Not Reported Piece Part	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	33 1.3E0 15 7 22 1.0E2 9					
DESIGN APPROACH/TECHNOLOGY	Alphanumeric			FAULT TOLERANCE							
CRT		Hybrid	0	Redundant Channels							
Flat Panel		Linear/Interface	12	Graceful Degrading							
Graphic		Digital SSI/MSI	0	Degraded Modes							
Projection		Digital LSI & Memory	0	None	X						
Visual		Microprocessor	0	SCREEN CLASS							
Projection		Total IC's	12	JAN TXV	X						
Simplex		Tubes	1	JAN TX	X						
Solid State		Discretes	119	JAN Grade							
		TOTAL ELEMENTS	132	Commercial Grade							
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	326 Guidance/Navigation High Reliability Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	35 0.8E0 9 8 18 16					
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE							
Attitude		Hybrid	537	Redundant Channels							
Gimbaled		Linear/Interface	0	Graceful Degrading							
Inertial		Digital SSI/MSI	0	Degraded Modes							
Graphic		Digital LSI & Memory	0	None	X						
Projection		Microprocessor	0	SCREEN CLASS							
Visual		Total IC's	537	JAN TXV	X						
Projection		Tubes	0	JAN TX	X						
Simplex		Discretes	111	JAN Grade							
Solid State		TOTAL ELEMENTS	648	Commercial Grade							

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	327 Guidance/Navigation Not Reported Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Detection Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	40 1.3E0    5.5E1       0.50				
DESIGN APPROACH/TECHNOLOGY Attitude Gimballed Inertial Graphic Projection Visual Projection Simplex Solid State											
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	328 Guidance/Navigation Inertial Reference Not Reported Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Detection Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Position Accuracy Velocity Accuracy Heading Accuracy Range Drift Rate # of Gimbals # of Gyros # of Accelerometers	14 0.2E0 6 6 10  1   9  17 6 2 2				
DESIGN APPROACH/TECHNOLOGY Analog Electrolytically Driven Gyro Electrolytic Accelerometer Free Gyro Gimballed Rate Gyro Projection Simplex Solid State											

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	1 0.1E0 2 6 4 1
329	Guidance/Navigation Indicator/Control	Not Reported	Hybrid	COOLING		
	Electrically Driven Gyro		Linear/Interface	Ambient Air X		
	Electrolytic Accelerometer		Digital SSI/MSI	Forced Air		
	Free Gyro		Digital LSI & Memory	Liquid		
	Gimbaled		Microprocessor			
	Rate Gyro		Total IC'S			
	Projection		Tubes			
	Simplex		Discretes			
	Solid State		TOTAL ELEMENTS			
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====		===== MAJOR PARAMETERS =====	
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	16 0.5E0 9 10 10 4.0E1 8
330	Guidance/Navigation Computer (CPU)	Not Reported	Hybrid	COOLING		
	Electrically Driven Gyro		Linear/Interface	Ambient Air X		
	Electrolytic Accelerometer		Digital SSI/MSI	Forced Air		
	Free Gyro		Digital LSI & Memory	Liquid		
	Gimbaled		Microprocessor			
	Rate Gyro		Total IC'S			
	Projection		Tubes			
	Simplex		Discretes			
	Solid State		TOTAL ELEMENTS			

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	331 Controls/Displays Commercial Design Stand. Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Resolution # of Character Lines Refresh Operating Speed Number of Keys Display Area	45 2.5E0 14 20 23 4.0E1 4 60 93 143		
DESIGN APPROACH/TECHNOLOGY				COOLING				
Alphanumeric CRT Control Display Electromechanical Graphic Keyboard Entry Simplex Solid State		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 9 49 16 1 75 1 70 146	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	332 Controls/Displays Indicator/Control Commercial Design Stand. Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	0.2E0 3 20 7 3 93 98		
DESIGN APPROACH/TECHNOLOGY				COOLING				
Alphanumeric Flat Panel Keyboard Entry Manual Electromechanical Graphic Keyboard Entry Simplex Solid State		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 5 49 16 1 71 0 17 88	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X				



# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	333 Controls/Displays Indicator/Control Commercial Design Stand. Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade X	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	2.3E0 14 20 14 1 1	
DESIGN APPROACH/TECHNOLOGY								
CRT Graphic Multicolor Visual Electromechanical Graphic Keyboard Entry Simplex Solid State								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	334 Sonar Not Reported Not Reported Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Transmitter Power PRF AZ Coverage/Angle Vertical Beam Width Horz. Beam Width Pulse Length # of Transducers Duty Cycle	12977 6.2E2 9.0E4 8.4E3 1.0E3 360 12.50 12.00 1.6E2 288 15.00	
DESIGN APPROACH/TECHNOLOGY								
Active Audio Monitor Continuous Wave Detect Directional Doppler Frequency Modulated Localize Omnidirectional								

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	335 Sonar	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	1,587 879 3,685 253 0 6,404 2 5,720 12,126	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	Fault Detection Fault Detection Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Transmitter Power PRF AZ Coverage/Angle Vertical Beam Width Horz. Beam Width Pulse Length # of Transducers Duty Cycle	12977 6.2E2    9.0E4 8.4E3 1.0E3 360 12.50 12.00 1.6E2 288 15.00
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	336 Communications	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	8 53 63 0 0 124 0 430 554	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	Fault Detection Fault Detection Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	256 8.7E1    8.3E1 26 UHF   15 75   Frequency Stability Duty Cycle
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	336 Communications	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	8 53 63 0 0 124 0 430 554	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid Redundant Channels Graceful Degrading Degraded Modes None JAN TXV JAN TX JAN Grade Commercial Grade	Fault Detection Fault Detection Reconfiguration COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	256 8.7E1    8.3E1 26 UHF   15 75   Frequency Stability Duty Cycle

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	337			General Purpose Computer			Automated ON line	Weight			5
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			
CATEGORY	Guidance/Navigation			Software Controlled			Manual	Height			
EQUIPMENT TYPE				Hardware Controlled			COOLING	Width			
DERATING GUIDELINES	High Reliability			Automated Print Out			Ambient Air	Depth			
SELF TEST CAPABILITY	Manual Bite			Manual Read Panel			Forced Air	Power			4.0E1
REPLACEMENT LEVEL	Unit (LRU/SRU)						Liquid	Modules			5
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Position Accuracy			
Dead Reckoning				Hybrid		0		Range			
Digital Data				Linear/Interface		15		Way Points			
Frequency Modulated				Digital SSI/MSI		10		Destinations			
Frequency/Pulse Shift Keying				Digital LSI & Memory		0		Velocity Accuracy			
Radio				Microprocessor		0		Height Accuracy			
Receiver				Total IC'S		25		Heading Accuracy			
Solid State				Tubes		0		Frequency Band			
Localize				Discretes		240					
Omnidirectional				TOTAL ELEMENTS		265					
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	338			General Purpose Computer			Automated ON line	Weight			4
PROGRAM ID				BIT Microprocessor			Automated OFF line	Volume			0.1E0
CATEGORY	Guidance/Navigation			Software Controlled			Manual	Height			8
EQUIPMENT TYPE	Transceiver			Hardware Controlled			COOLING	Width			4
DERATING GUIDELINES	High Reliability			Automated Print Out			Ambient Air	Depth			3
SELF TEST CAPABILITY	Not Reported			Manual Read Panel			Forced Air	Power			4.0E1
REPLACEMENT LEVEL	Not Reported						Liquid	Modules			
DESIGN APPROACH/TECHNOLOGY				ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Frequency Band		S	
Radar				Hybrid		0		Peak Power Out		2.0E2	
Digital Data				Linear/Interface		11		Average Power Out			
Frequency Modulated				Digital SSI/MSI		10		# of Selectable			
Frequency/Pulse Shift Keying				Digital LSI & Memory		0		Frequencies			
Radio				Microprocessor		0		Frequency Stability			
Receiver				Total IC'S		21		Digital Data Rate			
Solid State				Tubes		0		Receiver Sensitivity			
Localize				Discretes		218		Pulse Repetition		1.0E4	
Omnidirectional				TOTAL ELEMENTS		239		Frequency			

## EQUIPMENT CHARACTERIZATION

[illegible]

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
341	Computer	High Reliability	Automated Bit Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled X Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	0	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's 785 Tubes 0 Discretes 116 TOTAL ELEMENTS 901	Automated ON line Fault Detection Automated OFF line Manual Ambient Air Forced Air X Liquid COOLING FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None X SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight 29 Volume 0.5E0 Height 8 Width 5 Depth 21 Power Modules 13 Clock Frequency 4.0E3 Word Length 16 Memory Size 3.3E4 Interrupt Levels 16 # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	
342	Computer	High Reliability	Automated Bit Assembly (SRU)	General Purpose Computer BIT Microprocessor Software Controlled X Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	0	Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's 438 Tubes 0 Discretes 73 TOTAL ELEMENTS 511	Automated ON line Fault Detection Automated OFF line Manual Ambient Air Forced Air X Liquid COOLING FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None X SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight 17 Volume 0.4E0 Height 7 Width 6 Depth 15 Power Modules 17 Clock Frequency Word Length Memory Size 2.6E3 Interrupt Levels # of Busses Memory I/O Rate # of Registers # of Accumulators # of Input Ports # of Output Ports	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	343		General Purpose Computer		Automated ON line	Weight	11	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.2E0	
CATEGORY	Guidance/Navigation		Software Controlled		Manual	Height	7	
EQUIPMENT TYPE	Computer (CPU)		Hardware Controlled	X		Width	6	
DERATING GUIDELINES	High Reliability		Automated Print Out		Ambient Air	Depth	10	
SELF TEST CAPABILITY	Manual Bite		Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Unit (LRU/SRU)				Liquid	Modules	7	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			Clock Frequency		
Analog			ACTIVE ELEMENT COUNT		Redundant Channels	Word Length		
Dedicated			Hybrid	0	Graceful Degradation	Memory Size		
Stored Program			Linear/Interface	0	Degraded Modes	Interrupt Levels		
Synchronous			Digital SSI/MSI	0	None	Memory I/O Rate		
Radio			Digital LSI & Memory	0	SCREEN CLASS	# of Busses		
Receiver			Microprocessor	0		# of Registers		
Solid State			Total IC's	42	JAN TXV	# of Accumulators		
Localize			Tubes	0	JAN TX	# of Input Ports		
Omnidirectional			Discretes	220	JAN Grade	# of Output Ports		
			TOTAL ELEMENTS	262	Commercial Grade			
===== IMPLEMENTATION =====			===== FAULT TOLERANCE =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	344		General Purpose Computer		Automated ON line	Weight	14	
PROGRAM ID			BIT Microprocessor		Automated OFF line	Volume	0.2E0	
CATEGORY	Guidance/Navigation		Software Controlled		Manual	Height	6	
EQUIPMENT TYPE	Inertial Reference		Hardware Controlled	X		Width	6	
DERATING GUIDELINES	High Reliability		Automated Print Out		Ambient Air	Depth	10	
SELF TEST CAPABILITY	Manual Bite		Manual Read Panel		Forced Air	Power		
REPLACEMENT LEVEL	Unit (LRU/SRU)				Liquid	Modules	1	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====			Position Accuracy		
Electrolytic Accelerometer			ACTIVE ELEMENT COUNT		Redundant Channels	Velocity Accuracy		
Gimbaled			Hybrid	0	Graceful Degradation	Heading Accuracy		
Over 1 Hr Mission			Linear/Interface	0	Degraded Modes	Range		
Synchronous			Digital SSI/MSI	0	None	Drift Rate		
Radio			Digital LSI & Memory	0	SCREEN CLASS	# of Gimbals		
Receiver			Microprocessor	0		# of Gyros		
Solid State			Total IC's	0	JAN TXV	# of Accelerometers		
Localize			Tubes	0	JAN TX			
Omnidirectional			Discretes	2	JAN Grade			
			TOTAL ELEMENTS	2	Commercial Grade			

[illegible]

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
347		Guidance/Navigation			General Purpose Computer	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Frequency Band Peak Power Out Average Power Out # of Simultaneous Channels Channel Width Pulse Repetition Frequency Digital Data Rate # of Selectable Frequencies Frequency Stability Duty Cycle
		Transmitter			BITS Microprocessor		113 2.1E0
		High Reliability			Hardware Controlled	COOLING	
		Automated Bit			Automated Print Out	Ambient Air	
		Unit (LRU/SRU)			Manual Read Panel	Forced Air	4.8E3
					X	Liquid	
						FAULT TOLERANCE	
					ACTIVE ELEMENT COUNT	Redundant Channels	
					Hybrid	Graceful Degradation	
					Linear/Interface	Degraded Modes	
					Digital SSI/MSI	None	
					Digital LSI & Memory	SCREEN CLASS	
					Microprocessor		
					Total IC'S	JAN TXV	
					Tubes	JAN TX	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	
348		Radar			General Purpose Computer	Automated ON line Automated OFF line Manual	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band
		Receiver			BITS Microprocessor		46 0.9E0
		High Reliability			Hardware Controlled	COOLING	
		Automated Bit			Automated Print Out	Ambient Air	
		Unit (LRU/SRU)			Manual Read Panel	Forced Air	3.9E2
					X	Liquid	
						FAULT TOLERANCE	
					ACTIVE ELEMENT COUNT	Redundant Channels	
					Hybrid	Graceful Degradation	
					Linear/Interface	Degraded Modes	
					Digital SSI/MSI	None	
					Digital LSI & Memory	SCREEN CLASS	
					Microprocessor		
					Total IC'S	JAN TXV	
					Tubes	JAN TX	
					Discretes	JAN Grade	
					TOTAL ELEMENTS	Commercial Grade	



# EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID 349			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height
349		Radar	Analog	Hybrid	0				45	0.9E0	
			DMA Channel	Linear/Interface	0						
			Digital	Digital SSI/MSI	0						
			External Program	Digital LSI & Memory	0						
			General Purpose	Microprocessor	0						
			Synchronous	Total IC's	1,089						
			Solid State	Tubes	0						
			Localize	Discretes	0						
			Omnidirectional	TOTAL ELEMENTS	1,089						
EQUIPMENT ID 350			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height
350		Radar	Digital	Hybrid	0				55	0.9E0	
			Stored Program	Linear/Interface	0						
			Digital	Digital SSI/MSI	0						
			External Program	Digital LSI & Memory	0						
			General Purpose	Microprocessor	0						
			Synchronous	Total IC's	3,982						
			Solid State	Tubes	0						
			Localize	Discretes	0						
			Omnidirectional	TOTAL ELEMENTS	3,982						
EQUIPMENT ID 350			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height
350		Computer (CPU)	Digital	Hybrid	0				55	0.9E0	
			Stored Program	Linear/Interface	0						
			Digital	Digital SSI/MSI	0						
			External Program	Digital LSI & Memory	0						
			General Purpose	Microprocessor	0						
			Synchronous	Total IC's	3,982						
			Solid State	Tubes	0						
			Localize	Discretes	0						
			Omnidirectional	TOTAL ELEMENTS	3,982						
EQUIPMENT ID 350			IMPLEMENTATION			FAULT CONTROL			MAJOR PARAMETERS		
EQUIPMENT ID	PROGRAM ID	CATEGORY	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	Automated ON line	Automated OFF line	Fault Detection	Weight	Volume	Height
350		Computer (CPU)	Digital	Hybrid	0				55	0.9E0	
			Stored Program	Linear/Interface	0						
			Digital	Digital SSI/MSI	0						
			External Program	Digital LSI & Memory	0						
			General Purpose	Microprocessor	0						
			Synchronous	Total IC's	3,982						
			Solid State	Tubes	0						
			Localize	Discretes	0						
			Omnidirectional	TOTAL ELEMENTS	3,982						

## EQUIPMENT CHARACTERIZATION

[illegible]

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	PROGRAM ID	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	Automated ON line	Fault Isolation	Weight				
354		External Program	0	BIT Microprocessor	Automated OFF line		Volume				
CATEGORY		Serial	0	Software Controlled	Manual		Height				
EQUIPMENT TYPE		Stored Program	0	Hardware Controlled	COOLING		Width				
DERATING GUIDELINES		Synchronous	0	Automated Print Out	Ambient Air		Depth				
SELF TEST CAPABILITY		General Purpose	0	Manual Read Panel	Forced Air		Power				
REPLACEMENT LEVEL		Synchronous	0		Liquid		Modules				
		Solid State	554				Clock Frequency				
		Localize	0				Word Length				
		Omnidirectional	142				Memory Size				
			696				Interrupt Levels				
							Memory I/O Rate				
							# of Busses				
							# of Registers				
							# of Accumulators				
							# of Input Ports				
							# of Output Ports				

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID		DESIGN APPROACH/TECHNOLOGY		IMPLEMENTATION		FAULT CONTROL		MAJOR PARAMETERS	
357	General Purpose Computer	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	Automated OFF line	Volume	Automated ON line	Weight
357	BIT Microprocessor	BIT Microprocessor	95	Manual	Volume	Manual	Height	Manual	Height
357	Software Controlled	Software Controlled	4	Ambient Air	Width	Ambient Air	Depth	Ambient Air	Depth
357	Hardware Controlled	Hardware Controlled	33	Forced Air	Power	Forced Air	Power	Forced Air	Power
357	Automated Print Out	Automated Print Out	0	Liquid	Modules	Liquid	Modules	Liquid	Modules
357	Manual Read Panel	Manual Read Panel	0		Frequency Band		Frequency Band		Frequency Band
357			0		Polarization		Polarization		Polarization
357			132		Gain		Gain		Gain
357			0		Effective Area		Effective Area		Effective Area
357			89		Beam Width		Beam Width		Beam Width
357			221		Azimuth Scan Rate		Azimuth Scan Rate		Azimuth Scan Rate
357					Elevation Scan Rate		Elevation Scan Rate		Elevation Scan Rate
357					Scan Sector Width		Scan Sector Width		Scan Sector Width
358	General Purpose Computer	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Weight	Automated OFF line	Volume	Automated ON line	Weight
358	BIT Microprocessor	BIT Microprocessor	21	Manual	Volume	Manual	Height	Manual	Volume
358	Software Controlled	Software Controlled	611	Ambient Air	Width	Ambient Air	Depth	Ambient Air	Width
358	Hardware Controlled	Hardware Controlled	717	Forced Air	Power	Forced Air	Power	Forced Air	Power
358	Automated Print Out	Automated Print Out	0	Liquid	Modules	Liquid	Modules	Liquid	Modules
358	Manual Read Panel	Manual Read Panel	0		Frequency Band		Frequency Band		Frequency Band
358			0		Detection Range		Detection Range		Detection Range
358			1,349		Peak RF Power		Peak RF Power		Peak RF Power
358			2		Average RF Power		Average RF Power		Average RF Power
358			2,362		PRF		PRF		PRF
358			3,713		AZ Coverage/Angle		AZ Coverage/Angle		AZ Coverage/Angle
358					Scan Rate		Scan Rate		Scan Rate
358					Polarization		Polarization		Polarization
358					Beam Width		Beam Width		Beam Width
358					Elev. Coverage/Angle		Elev. Coverage/Angle		Elev. Coverage/Angle
358					Target Size		Target Size		Target Size
358					Antenna Gain		Antenna Gain		Antenna Gain

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	359 Radar Antenna High Reliability Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	1 2 0 0 0 3 0 1 4	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X X	Fault Detection	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	X		
DESIGN APPROACH/TECHNOLOGY Complex Radiation Pattern Directional Elevation Scanning Telegraph/Telex Tracking Phased Array Solid State Localize Omnidirectional					FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade						
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	360 Radar Antenna High Reliability Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	1 2 0 0 0 3 0 0 3	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X X	Fault Detection	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	X		
DESIGN APPROACH/TECHNOLOGY Azimuth Scanning Complex Radiation Pattern Directional Telegraph/Telex Tracking Phased Array Solid State Localize Omnidirectional					FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade						

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	361 Radar Converter High Reliability Automated Bit Assembly (SRU)	ACTIVE ELEMENT COUNT		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Detection Fault Detection	Weight Volume Height Width Depth Power Modules # of Bits	163 9.8E0 32 23 23 23 12				
DESIGN APPROACH/TECHNOLOGY		FAULT TOLERANCE									
Discrete Components		1		Redundant Channels		Clock Frequency					
Hybrid		10		Graceful Degrading		Freq. Band Input					
Serial		243		Degraded Modes		Freq. Band Output					
Telegraph/Telex		0		None	X						
Tracking		0		SCREEN CLASS							
Phased Array		254		JAN TXV	X						
Solid State		0		JAN TX	X						
Localize		112		JAN Grade							
Omnidirectional		366		Commercial Grade							
TOTAL ELEMENTS											
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	362 Radar Receiver High Reliability Automated Bit Unit (LRU/SRU)	ACTIVE ELEMENT COUNT		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Detection Fault Detection	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band	458 2.3E1 69 23 25 1 4.0E3 X				
DESIGN APPROACH/TECHNOLOGY		FAULT TOLERANCE									
Radar		16		Redundant Channels							
Solid State		110		Graceful Degrading							
Serial		292		Degraded Modes							
Telegraph/Telex		0		None	X						
Tracking		0		SCREEN CLASS							
Phased Array		418		JAN TXV	X						
Solid State		0		JAN TX	X						
Localize		766		JAN Grade							
Omnidirectional		1,184		Commercial Grade							
TOTAL ELEMENTS											

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	IMPLEMENTATION	FAULT CONTROL	Weight Volume Height Width Depth Power Modules Carrier Frequency Modulation Rate Modulation Band Rate PRF Peak Volts Output # of Combined Signal
363	Radar	Mux/Demux	High Reliability	Digital	X	0	General Purpose Computer	Automated ON line Automated OFF line Manual	12
				Solid State		280	BIT Microprocessor	Graceful Degradation	0.7E0
				Serial		73	Software Controlled	Degraded Modes	5
				Telegraph/Telex		0	Hardware Controlled	None	21
				Tracking		0	Automated Print Out	SCREEN CLASS	11
				Phased Array		353	Manual Read Panel	JAN TXV	
				Solid State		0		JAN TX	
				Localize		618		JAN Grade	
				Omnidirectional		971		Commercial Grade	
					TOTAL ELEMENTS				
364	Radar	Interconnect/Distribute	High Reliability	Passive	X	0	General Purpose Computer	Automated ON line Automated OFF line Manual	12
				Signal		0	BIT Microprocessor	Graceful Degradation	0.7E0
				Serial		0	Software Controlled	Degraded Modes	5
				Telegraph/Telex		0	Hardware Controlled	None	21
				Tracking		0	Automated Print Out	SCREEN CLASS	11
				Phased Array		0	Manual Read Panel	JAN TXV	
				Solid State		0		JAN TX	
				Localize		5		JAN Grade	
				Omnidirectional		5		Commercial Grade	
					TOTAL ELEMENTS				

## EQUIPMENT CHARACTERIZATION

IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID	365	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	Fault Detection	Weight	Volume	Height	
PROGRAM ID		BIT Microprocessor	0	Manual	COOLING						
CATEGORY	Radar	Software Controlled	0	Ambient Air	X						
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	0	Forced Air							
DERATING GUIDELINES	High Reliability	Automated Print Out	0	Liquid							
SELF TEST CAPABILITY	None	Manual Read Panel	0								
REPLACEMENT LEVEL	Unit (LRU/SRU)		0								
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Input Rate			
Audible		Hybrid	0	Redundant Channels				Output Rate			
Flat Panel		Linear/Interface	0	Graceful Degradation				# of Keys			
Manual		Digital SSI/MSI	0	Degraded Modes				# of Controls			
Visual		Digital LSI & Memory	0	None				Resolution			
Tracking		Microprocessor	0	SCREEN CLASS	X			# of Lines			
Phased Array		Total IC'S	0	JAN TXV	X			# of Characters/Line			
Solid State		Tubes	0	JAN TX	X			Display Area			
Localize		Discretes	21	JAN Grade				Display Diagonal			
Omnidirectional		TOTAL ELEMENTS	21	Commercial Grade				# of Annunciators			
								Input Volts			
IMPLEMENTATION				FAULT CONTROL				MAJOR PARAMETERS			
EQUIPMENT ID	366	General Purpose Computer	ACTIVE ELEMENT COUNT	Automated ON line	Automated OFF line	Manual	Fault Detection	Weight	Volume	Height	
PROGRAM ID		BIT Microprocessor	0	Manual	COOLING						
CATEGORY	Radar	Software Controlled	0	Ambient Air	X						
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled	0	Forced Air							
DERATING GUIDELINES	High Reliability	Automated Print Out	0	Liquid							
SELF TEST CAPABILITY	None	Manual Read Panel	0								
REPLACEMENT LEVEL	Unit (LRU/SRU)		0								
DESIGN APPROACH/TECHNOLOGY				FAULT TOLERANCE				Input Rate			
Automatic		Hybrid	0	Redundant Channels				Output Rate			
Flat Panel		Linear/Interface	0	Graceful Degradation				# of Keys			
Manual		Digital SSI/MSI	0	Degraded Modes				# of Controls			
Visual		Digital LSI & Memory	0	None				Resolution			
Tracking		Microprocessor	0	SCREEN CLASS	X			# of Lines			
Phased Array		Total IC'S	0	JAN TXV	X			# of Characters/Line			
Solid State		Tubes	0	JAN TX	X			Display Area			
Localize		Discretes	74	JAN Grade				Display Diagonal			
Omnidirectional		TOTAL ELEMENTS	74	Commercial Grade				# of Annunciators			
								Input Volts			



## EERD-2 EQUIPMENT RELIABILITY

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
367	Radar	Interconnect/Distribute	High Reliability	Automated Bit	X	(LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Active Element Count Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid  Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules # of Signals Frequency Band Power Level
368	Radar	Power Supply	High Reliability	Automated Bit	X	(LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Active Element Count Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air X Forced Air Liquid  Fault Tolerance Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV X JAN TX X JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules # of Outputs Voltage Out # 1 Voltage Out # 2 Voltage Out # 3 Current Out # 1 Current Out # 2 Current Out # 3 Percent Regulation 1 Percent Regulation 2 Percent Regulation 3 Input Frequency Convert or Output Frequency

## EQUIPMENT CHARACTERIZATION

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
369	Radar	Interconnect/Distribute	High Reliability	Audible	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air X Forced Air Liquid	Weight 20 Volume 0.6EO Height 15 Width 10 Depth 7 Power Modules # of Signals Frequency Band Power Level
				ACTIVE ELEMENT COUNT	0	FAULT TOLERANCE	
				Hybrid	0	Redundant Channels	
				Linear/Interface	0	Graceful Degrading	
				Digital SSI/MSI	0	Degraded Modes	X
				Digital LSI & Memory	0	None	SCREEN CLASS
				Microprocessor	0	JAN TXV	X
				Total IC's	0	JAN TX	X
				Tubes	0	JAN Grade	
				Discretes	7	Commercial Grade	
				TOTAL ELEMENTS	7		
370	Radar	Power Supply	High Reliability	Digital	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air Forced Air X Liquid	Weight 70 Volume 1.0EO Height 5 Width 4 Depth 8 Power Modules # of Outputs 1 Voltage Out # 1 28 Voltage Out # 2 Voltage Out # 3 Current Out # 1 15000 Current Out # 2 Current Out # 3 Percent Regulation 1 Percent Regulation 2 Percent Regulation 3 Input Frequency Convert or Output Frequency
				ACTIVE ELEMENT COUNT	0	FAULT TOLERANCE	
				Hybrid	0	Redundant Channels	
				Linear/Interface	0	Graceful Degrading	
				Digital SSI/MSI	0	Degraded Modes	X
				Digital LSI & Memory	0	None	SCREEN CLASS
				Microprocessor	0	JAN TXV	X
				Total IC's	0	JAN TX	X
				Tubes	0	JAN Grade	
				Discretes	24	Commercial Grade	
				TOTAL ELEMENTS	24		

EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL
371	371	Radar	Mux/Demux	High Reliability	Automated Bit	Unit (LRU/SRU)
<b>DESIGN APPROACH/TECHNOLOGY</b>						
Digital	Solid State	Switching Regulated	Visual	Tracking	Phased Array	Solid State
Localize	Omnidirectional					
<b>IMPLEMENTATION</b>						
General Purpose Computer	BITS Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	X
<b>ACTIVE ELEMENT COUNT</b>						
Hybrid	Linear/Interface	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	Total IC's	Tubes
0	143	39	0	0	182	0
					Discretes	305
					TOTAL ELEMENTS	487
<b>FAULT CONTROL</b>						
Automated ON line	Automated OFF line	Fault Detection	Fault Detection			
Manual	COOLING	Ambient Air	Forced Air	Liquid		
<b>MAJOR PARAMETERS</b>						
Weight	Volume	Height	Width	Depth	Power	Modules
63	2.8E0	11	21	21		
Carrier Frequency	Modulation Rate	Modulation Baud Rate	PRF	Peak Volts Output	# of Combined Signal	14
<b>IMPLEMENTATION</b>						
General Purpose Computer	BITS Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	
<b>ACTIVE ELEMENT COUNT</b>						
Hybrid	Linear/Interface	Digital SSI/MSI	Digital LSI & Memory	Microprocessor	Total IC's	Tubes
0	143	39	0	0	182	0
					Discretes	305
					TOTAL ELEMENTS	487
<b>FAULT CONTROL</b>						
Automated ON line	Automated OFF line	Fault Detection	Fault Detection			
Manual	COOLING	Ambient Air	Forced Air	Liquid		
<b>MAJOR PARAMETERS</b>						
Weight	Volume	Height	Width	Depth	Power	Modules
20	2.2E0	9	21	20		
Input Rate	Output Rate	# of Keys	# of Controls	Resolution	# of Lines	# of Characters/Line
						Display Area
						Display Diagonal
						# of Annunciators
						Input Volts

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	373	General Purpose Computer		Automated ON line		Weight		21			
PROGRAM ID		BIT Microprocessor		Automated OFF line		Volume		2.9E0			
CATEGORY	Radar	Software Controlled		Manual		Height		12			
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled		COOLING		Width		21			
DERATING GUIDELINES	High Reliability	Automated Print Out		Ambient Air X		Depth		20			
SELF TEST CAPABILITY	None	Manual Read Panel		Forced Air		Power					
REPLACEMENT LEVEL	Unit (LRU/SRU)			Liquid		Modules					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Input Rate					
Flat Panel		Hybrid		Redundant Channels		Output Rate					
Manual		Linear/Interface		Graceful Degrading		# of Keys					
Manual		Digital SSI/MSI		Degraded Modes		# of Controls				6	
Visual		Digital LSI & Memory		None		Resolution					
Tracking		Microprocessor		X		# of Lines					
Phased Array		Total IC'S		SCREEN CLASS		# of Characters/Line					
Solid State		Tubes		JAN TXV X		Display Area					
Localize		Discretes		JAN TX X		Display Diagonal					
Omnidirectional		TOTAL ELEMENTS		JAN Grade		# of Annunciators					
		35		Commercial Grade		Input Volts					
		35									
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	374	General Purpose Computer		Automated ON line		Weight		471			
PROGRAM ID		BIT Microprocessor		Automated OFF line		Volume		2.2E1			
CATEGORY	Radar	Software Controlled		Manual		Height		55			
EQUIPMENT TYPE	Indicator/Control	Hardware Controlled		COOLING		Width		22			
DERATING GUIDELINES	High Reliability	Automated Print Out		Ambient Air X		Depth		31			
SELF TEST CAPABILITY	None	Manual Read Panel		Forced Air		Power					
REPLACEMENT LEVEL	Unit (LRU/SRU)			Liquid		Modules					
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Input Rate					
CRT		Hybrid		Redundant Channels		Output Rate					
Visual		Linear/Interface		Graceful Degrading		# of Keys					
Manual		Digital SSI/MSI		Degraded Modes		# of Controls					
Visual		Digital LSI & Memory		None		Resolution					
Tracking		Microprocessor		X		# of Lines					
Phased Array		Total IC'S		SCREEN CLASS		# of Characters/Line					
Solid State		Tubes		JAN TXV X		Display Area					
Localize		Discretes		JAN TX X		Display Diagonal					
Omnidirectional		TOTAL ELEMENTS		JAN Grade		# of Annunciators					
		231		Commercial Grade		Input Volts					
		361									

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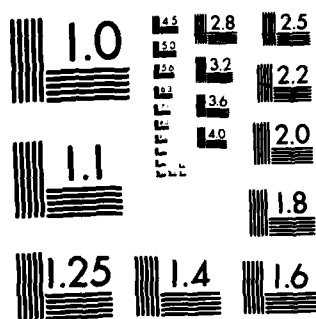
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XEROCOPY RESOLUTION TEST CHART  
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# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====										===== FAULT CONTROL =====										===== MAJOR PARAMETERS =====																	
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	Automated ON line	Automated OFF line	Manual	Fault Detection	Fault Detection	Weight	Volume	Height	Width	Depth	Power	Modules	Frequency Band	Peak Power Out	Average Power Out	# of Simultaneous Channels	Channel Width	Pulse Repetition	Frequency	Digital Data Rate	# of Selectable Frequencies	Frequency Stability	Duty Cycle
375	Radar	Transmitter	High Reliability	Magnetron	Automated Bit	Assembly (SRU)		0	Hybrid											656	1.9E1	32	45	23		X	6.5E4	3.9E1									
				Radar	Automated Bit			0	Linear/Interface																												
				Manual	Automated Bit			0	Digital SSI/MSI																												
				Visual	Automated Bit			0	Digital LSI & Memory																												
				Tracking	Automated Bit			0	Microprocessor																												
				Phased Array	Automated Bit			0	Total IC's																												
				Solid State	Automated Bit			2	Tubes																												
				Localize	Automated Bit			54	Discretes																												
				Omnidirectional	Automated Bit			56	TOTAL ELEMENTS																												
===== IMPLEMENTATION =====										===== FAULT CONTROL =====										===== MAJOR PARAMETERS =====																	
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	Automated ON line	Automated OFF line	Manual	Fault Detection	Fault Detection	Weight	Volume	Height	Width	Depth	Power	Modules	# of Bits	Clock Frequency	Freq. Band Input	Freq. Band Output							
376	Radar	Converter	High Reliability	Discrete Components	Automated Bit	Unit (LRU/SRU)		0	Hybrid											275	8.0E0	30	23	20													
				Frequency Converter	Automated Bit			2	Linear/Interface																												
				Manual	Automated Bit			2	Digital SSI/MSI																												
				Visual	Automated Bit			0	Digital LSI & Memory																												
				Tracking	Automated Bit			0	Microprocessor																												
				Phased Array	Automated Bit			4	Total IC's																												
				Solid State	Automated Bit			0	Tubes																												
				Localize	Automated Bit			70	Discretes																												
				Omnidirectional	Automated Bit			74	TOTAL ELEMENTS																												

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	378 Guidance/Navigation High Reliability Manual Bite Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	428 6.650     4	
DESIGN APPROACH/TECHNOLOGY		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 568 4 604 1,176					
Gimbaled Inertial Laser Visual Tracking Phased Array Solid State Localize Omnidirectional								
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	379 Radar High Reliability Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	FAULT TOLERANCE Redundant Channels Graceful Degradation Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain	637      19 K	
DESIGN APPROACH/TECHNOLOGY		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 172 24 2,920 3,116					
Magnetron Surveillance/Search Terrain Following/Avoidance Tracking Tracking Phased Array Solid State Localize Omnidirectional								



[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	382			General Purpose Computer		Automated ON Line		Weight	2		
PROGRAM ID				BIT Microprocessor		Automated OFF Line		Volume			
CATEGORY	Communications			Software Controlled	X	Manual	Fault Detection	Height	3		
EQUIPMENT TYPE	Indicator/Control			Hardware Controlled	X			Width	6		
DERATING GUIDELINES	High Reliability			Automated Print Out		Ambient Air	COOLING	Depth	5		
SELF TEST CAPABILITY	Manual Bite			Manual Read Panel	X	Forced Air		Power			
REPLACEMENT LEVEL	Unit (LRU/SRU)					Liquid		Modules	5		
===== DESIGN APPROACH/TECHNOLOGY =====				===== ACTIVE ELEMENT COUNT =====				===== FAULT TOLERANCE =====			
Audible				Hybrid		Redundant Channels		Input Rate			
Visual				Linear/Interface		Graceful Degrading		Output Rate			
Digital Data				Digital SSI/MSI		Degraded Modes		# of Keys			
Single Side Band				Digital LSI & Memory		None	X	# of Controls			
Variable Frequency				Microprocessor		SCREEN CLASS		Resolution			
Voice				Total IC'S	23	JAN TXV		# of Lines			
Solid State				Tubes	0	JAN TX	X	# of Characters/Line			
Localize				Discretes	89	JAN Grade		Display Area			
Omnidirectional				TOTAL ELEMENTS	112	Commercial Grade		Display Diagonal			
===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID	383			General Purpose Computer		Automated ON Line		Weight	24		
PROGRAM ID				BIT Microprocessor		Automated OFF Line		Volume			
CATEGORY	Communications			Software Controlled	X	Manual	Fault Detection	Height	7		
EQUIPMENT TYPE	Interconnect/Distribute			Hardware Controlled	X			Width	8		
DERATING GUIDELINES	High Reliability			Automated Print Out		Ambient Air	COOLING	Depth	21		
SELF TEST CAPABILITY	Manual Bite			Manual Read Panel		Forced Air		Power			
REPLACEMENT LEVEL	Unit (LRU/SRU)					Liquid		Modules	30		
===== DESIGN APPROACH/TECHNOLOGY =====				===== ACTIVE ELEMENT COUNT =====				===== FAULT TOLERANCE =====			
Active				Hybrid		Redundant Channels		# of Signals	1		
Signal				Linear/Interface		Graceful Degrading		Frequency Band	HF		
Digital Data				Digital SSI/MSI		Degraded Modes		Power Level			
Single Side Band				Digital LSI & Memory		None	X				
Variable Frequency				Microprocessor		SCREEN CLASS					
Voice				Total IC'S	48	JAN TXV					
Solid State				Tubes	39	JAN TX	X				
Localize				Discretes	0	JAN Grade					
Omnidirectional				TOTAL ELEMENTS	87	Commercial Grade					

# BERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	384 Communications High Reliability None Not Reported	DESIGN APPROACH/TECHNOLOGY Amplitude Modulation Single Side Band Voice Single Side Band Variable Frequency Voice Solid State Localize Omnidirectional	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power Simultaneous Channel Channel Width Receiver Sensitivity Maximum Baud Rate Minimum Baud Rate # of Selectable Freq Frequency Stability Duty Cycle	49 3 HF 4.0E2 2.0E2	
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	385 Controls/Displays Indicator/Control High Reliability Automated Bit Unit (LRU/SRU)	DESIGN APPROACH/TECHNOLOGY Automatic Visual Voice Single Side Band Variable Frequency Voice Solid State Localize Omnidirectional	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC's Tubes Discretes TOTAL ELEMENTS	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid FAULT TOLERANCE Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	3 2.0E1 8	

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	386		Automated ON line			Weight		
PROGRAM ID			Automated OFF line			Volume		
CATEGORY	Guidance/Navigation		Manual		Fault Isolation	Height		
EQUIPMENT TYPE			COOLING			Width		
DERATING GUIDELINES	High Reliability	X	Ambient Air	X		Depth		
SELF TEST CAPABILITY	Manual Bite	X	Forced Air			Power		
REPLACEMENT LEVEL	Unit (LRU/SRU)		Liquid			Modules		
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT	FAULT TOLERANCE			Position Accuracy		
Acoustic		Hybrid	Redundant Channels			Range		10.5
Radio		Linear/Interface	Graceful Degrading			Way Points		
Voice		Digital SSI/MSI	Degraded Modes			Destinations		
Single Side Band		Digital LSI & Memory	None	X		Velocity Accuracy		2.0E2
Variable Frequency		Microprocessor	SCREEN CLASS			Height Accuracy		
Voice		Total IC's	JAN TXV	X		Heading Accuracy		
Solid State		Tubes	JAN TX	X		Frequency Band		
Localize		Discretes	JAN Grade					
Omnidirectional		TOTAL ELEMENTS	Commercial Grade					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID	387		Automated ON line			Weight		4
PROGRAM ID			Automated OFF line			Volume		0.1E0
CATEGORY	Guidance/Navigation		Manual		Fault Isolation	Height		5
EQUIPMENT TYPE	Transceiver		COOLING			Width		3
DERATING GUIDELINES	High Reliability	X	Ambient Air	X		Depth		8
SELF TEST CAPABILITY	Manual Bite	X	Forced Air			Power		2.5E1
REPLACEMENT LEVEL	Unit (LRU/SRU)		Liquid			Modules		4
DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT	FAULT TOLERANCE			Frequency Band		X
Fixed Frequency		Hybrid	Redundant Channels			Peak Power Out		4.5E0
Radar		Linear/Interface	Graceful Degrading			Average Power Out		
Voice		Digital SSI/MSI	Degraded Modes			# of Selectable		
Single Side Band		Digital LSI & Memory	None	X		Frequencies		
Variable Frequency		Microprocessor	SCREEN CLASS			Frequency Stability		
Voice		Total IC's	JAN TXV	X		Digital Data Rate		
Solid State		Tubes	JAN TX	X		Receiver Sensitivity		1.7E4
Localize		Discretes	JAN Grade			Pulse Repetition		
Omnidirectional		TOTAL ELEMENTS	Commercial Grade			Frequency		

# EERD-2 EQUIPMENT RELIABILITY

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	388 Guidance/Navigation Antenna High Reliability Manual Bite Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Frequency Band Polarization Gain Effective Area Beam Width Azimuth Scan Rate Elevation Scan Rate Scan Sector Width	1		
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE						
Directional		Hybrid	0	Redundant Channels					
Fixed		Linear/Interface	0	Graceful Degrading					
Voice		Digital SSI/MSI	0	Degraded Modes					
Single Side Band		Digital LSI & Memory	0	None	X				
Variable Frequency		Microprocessor	0	SCREEN CLASS					
Voice		Total IC'S	0	JAN TXV					
Solid State		Tubes	0	JAN TX					
Localize		Discretes	0	JAN Grade					
Omnidirectional		TOTAL ELEMENTS	0	Commercial Grade					
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	389 Guidance/Navigation Indicator/Control High Reliability Manual Bite Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	COOLING X	Weight Volume Height Width Depth Power Modules Input Rate Output Rate # of Keys # of Controls Resolution # of Lines # of Characters/Line Display Area Display Diagonal # of Annunciators Input Volts	1 3 3 5 8.0EO		
DESIGN APPROACH/TECHNOLOGY			FAULT TOLERANCE						
Meter		Hybrid	0	Redundant Channels					
Visual		Linear/Interface	0	Graceful Degrading					
Voice		Digital SSI/MSI	0	Degraded Modes					
Single Side Band		Digital LSI & Memory	0	None	X				
Variable Frequency		Microprocessor	0	SCREEN CLASS					
Voice		Total IC'S	0	JAN TXV	X				
Solid State		Tubes	0	JAN TX	X				
Localize		Discretes	64	JAN Grade					
Omnidirectional		TOTAL ELEMENTS	64	Commercial Grade					

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	390 Guidance/Navigation High Reliability Not Reported Not Reported	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Isolation	Weight Volume Height Width Depth Power Modules Position Accuracy Range Way Points Destinations Velocity Accuracy Height Accuracy Heading Accuracy Frequency Band	28 0.7E0      3	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====					
Doppler Geographic Position Velocity Single Side Band Variable Frequency Voice Solid State Localize Omnidirectional		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 0 0 0 0 0 0 0 Not Reported	Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade				
===== IMPLEMENTATION =====			===== FAULT CONTROL =====			===== MAJOR PARAMETERS =====		
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	391 Radar High Reliability Semi Automated Bit Unit (LRU/SRU)	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	ACTIVE ELEMENT COUNT	Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid	Fault Isolation	Weight Volume Height Width Depth Power Modules Frequency Band Detection Range Peak RF Power Average RF Power PRF AZ Coverage/Angle Scan Rate Polarization Beam Width Elev. Coverage/Angle Target Size Antenna Gain	370      8 K	
===== DESIGN APPROACH/TECHNOLOGY =====			===== FAULT TOLERANCE =====					
Magnetron Surveillance/Search Terrain Following/Avoidance Tracking Variable Frequency Voice Solid State Localize Omnidirectional		Hybrid Linear/Interface Digital SSI/MSI Digital LSI & Memory Microprocessor Total IC'S Tubes Discretes TOTAL ELEMENTS	0 0 0 0 960 19 2,838 3,817	Redundant Channels Graceful Degrading Degraded Modes None SCREEN CLASS JAN TXV JAN TX JAN Grade Commercial Grade				

## EERD-2 EQUIPMENT RELIABILITY

[illegible]

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EQUIPMENT ID	PROGRAM ID	CATEGORY	DERATING GUIDELINES	SELF TEST CAPABILITY	REPLACEMENT LEVEL	DESIGN APPROACH/TECHNOLOGY	IMPLEMENTATION	FAULT CONTROL	MAJOR PARAMETERS
394		Guidance/Navigation		X		General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	General Purpose Computer X BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Ascension Accuracy Declination Accuracy # of Gimbals Min. Magnitude Star Drift Rate
		Stellar Reference	High Reliability				ACTIVE ELEMENT COUNT	COOLING	
		Semi Automated Bit Unit (LRU/SRU)					Hybrid		
		Analog					Linear/Interface		
		Automatic Capture					Digital SSI/MSI		
		Continuous Tracking					Digital LSI & Memory		
		Digital					Microprocessor		
		Variable Frequency					Total IC's		
		Voice					Tubes		
		Solid State					Discretes		
		Localize					TOTAL ELEMENTS		
		Omnidirectional							
395		Electronic Warfare				General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	General Purpose Computer BIT Microprocessor Software Controlled Hardware Controlled Automated Print Out Manual Read Panel	Automated ON line Automated OFF line Manual  Ambient Air Forced Air Liquid	Weight Volume Height Width Depth Power Modules Frequency Band Range Peak RF Power Average RF Power
		Continuous Wave					ACTIVE ELEMENT COUNT		
		Traveling Wave Tube					Hybrid		
		Continuous Tracking					Linear/Interface		
		Digital					Digital SSI/MSI		
		Variable Frequency					Digital LSI & Memory		
		Voice					Microprocessor		
		Solid State					Total IC's		
		Localize					Tubes		
		Omnidirectional					Discretes		
							TOTAL ELEMENTS		



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## EQUIPMENT CHARACTERIZATION

IMPLEMENTATION				FAULT CONTROL		MAJOR PARAMETERS									
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	Automated ON line	Automated OFF line	Manual	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band
398		Electronic Warfare	Receiver	ECM-EW	52	Hybrid									
		Radar			22	Linear/Interface						Redundant Channels			
		Solid State			63	Digital SSI/MSI						Graceful Degrading			
		Tube			0	Digital LSI & Memory						Degraded Modes			
		Variable Frequency			0	Microprocessor						None			
		Voice			137	Total IC'S						SCREEN CLASS			
		Solid State			10	Tubes						JAN TXV			
		Localize			306	Discretes						JAN TX	X		
		Omnidirectional			453	TOTAL ELEMENTS						JAN Grade			
												Commercial Grade			
EQUIPMENT ID	PROGRAM ID	CATEGORY	EQUIPMENT TYPE	DESIGN APPROACH/TECHNOLOGY	ACTIVE ELEMENT COUNT	General Purpose Computer	BIT Microprocessor	Software Controlled	Hardware Controlled	Automated Print Out	Manual Read Panel	Automated ON line	Automated OFF line	Manual	Weight Volume Height Width Depth Power Modules Sensitivity # of Simultaneous Channels Channel Width Digital Data Rate # of Selectable Frequencies Frequency Band
399		Electronic Warfare	Receiver	ECM-EW	6	Hybrid									
		Radar			2	Linear/Interface						Redundant Channels			
		Solid State			8	Digital SSI/MSI						Graceful Degrading			
		Tube			0	Digital LSI & Memory						Degraded Modes			
		Variable Frequency			0	Microprocessor						None			
		Voice			16	Total IC'S						SCREEN CLASS			
		Solid State			4	Tubes						JAN TXV			
		Localize			66	Discretes						JAN TX	X		
		Omnidirectional			86	TOTAL ELEMENTS						JAN Grade			
												Commercial Grade			

[illegible]

## EQUIPMENT CHARACTERIZATION

===== IMPLEMENTATION =====				===== FAULT CONTROL =====				===== MAJOR PARAMETERS =====			
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	402 Electronic Warfare Filter High Reliability Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid		Weight Volume Height Width Depth Power Modules Insertion Loss Max Attenuation Pass Band Width Attenuate Band Width Phase Shift Time Delay Frequency Band	
Band Pass		Hybrid		0		Redundant Channels					
Passive		Linear/Interface		0		Graceful Degrading		X			
Signal		Digital SSI/MSI		0		Degraded Modes					
Tube		Digital LSI & Memory		0		None					
Variable Frequency		Microprocessor		0		SCREEN CLASS					
Voice		Total IC'S		0		JAN TXV					
Solid State		Tubes		0		JAN TX					
Localize		Discretes		0		JAN Grade					
Omnidirectional		TOTAL ELEMENTS		0		Commercial Grade					
===== MAJOR PARAMETERS =====											
EQUIPMENT ID PROGRAM ID CATEGORY EQUIPMENT TYPE DERATING GUIDELINES SELF TEST CAPABILITY REPLACEMENT LEVEL	403 Electronic Warfare Signal/Data High Reliability Not Reported Not Reported	DESIGN APPROACH/TECHNOLOGY		ACTIVE ELEMENT COUNT		FAULT TOLERANCE		Automated ON line Automated OFF line Manual Ambient Air Forced Air Liquid		Weight Volume Height Width Depth Power Modules Clock Frequency Word Length Memory Size Interrupt Levels Memory I/O Rate # of Busses # of Registers # of Accumulators # of Input Ports # of Output Ports	
Digital		Hybrid		8		Redundant Channels					
Passive		Linear/Interface		42		Graceful Degrading					
Signal		Digital SSI/MSI		305		Degraded Modes					
Tube		Digital LSI & Memory		104		None					
Variable Frequency		Microprocessor		0		SCREEN CLASS					
Voice		Total IC'S		459		JAN TXV		X			
Solid State		Tubes		0		JAN TX		X			
Localize		Discretes		105		JAN Grade					
Omnidirectional		TOTAL ELEMENTS		564		Commercial Grade					

1

4-200

**PROGRAM/CONTRACT  
CHARACTERIZATION  
DATA**

## PROGRAM/CONTRACT CHARACTERIZATION DATA

The following section contains detailed listings of both program and contract-related data incorporated in the System RAM Data Base. Types of data comprising each program/contract record include:

- Program ID Number
- Procuring Agency
- Using Command
- Design Year
- Procurement Level
- Application
- Mission Length
- Procurement Type
- Procurement Approach
- Contract Type
- Financial Posture
- Design Review
- Demonstration
- Analysis/Prediction
- Numerics
- Program Elements
- Design Analysis
- Development Tests
- Production Inspection
- Equipment ID Number

Each type of data presented above is described in further detail in the following pages.

The format used in presenting the detailed data for this section provides for two records per page organized by Program Identification Number. The phrase "Not Reported" is used to illustrate data types that are not known at this time. For data types with more than one possible description, an "X" is used to designate correct choices.

## USER'S GUIDE

The descriptions supplied below refer to the types of data included in each program/contract record comprising the detailed section.

### Program ID Number:

Indicates the reference number assigned to the contract.

### Procuring Agency:

Indicates the agency that awarded the contract.

### Using Command:

Indicates the command wherein the equipment will be deployed.

### Design Year:

Indicates the year the equipment was designed.

### Procurement Level:

Lists the appropriate level of the equipment hardware delivered under the contract. The levels considered are:

- System
- Subsystem
- Set
- Group
- Unit

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Application:

The type of operational application environment. The applications considered are:

- Space
- Aircraft
- Ground
- Shipboard
- Various

Mission Length:

The normal equipment operational mission length. The mission lengths considered are:

- Continuous
- > Than 8 Hours: Greater than eight hours
- Between 1 & 8 Hours: Between one and eight hours
- < Than 1 Hour: Less than one hour

Procurement Type:

Lists the principal type of procurement being made. The types considered are:

- Existing Design
- Modified Design
- New Design
- Equipment Maintenance

Procurement Approach:

Indicates the approach used in procuring the equipment. The approaches include:

- Low Bidder
- Minimum LCC: Minimum Total Life Cycle Cost
- Minimum Support
- Technical Consideration
- Sole Source

Contract Type:

Lists the basic financial structure of the contract. The structures considered are:

- Design to Cost
- Warranty
- Cost Plus Fixed Fee
- Cost Plus Incentive: Cost Plus Incentive Fee
- Firm Fixed Price
- Fixed Price Plus Incentive Fee
- Off the Shelf

Financial Posture:

Lists the financial posture for the equipment. The areas considered are:

- Incentive Award
- Reliability Effort is >5% of Total Budget
- Reliability Effort is <5% of Total Budget
- Not Determined

### Design Reviews:

Lists the frequency and formality of required design reviews. The types considered are:

- >=2 Formal: 2 or more formal design review required
- 1 Formal: One formal design review required
- Informal: Informal design review required
- No Requirement

### Demonstration:

Indicates the demonstration requirements. The requirements considered are:

MIL-STD-781: Formal demonstration test requirements in accordance with MIL-STD-781. Also includes the applicable test plan and level

Not MIL-STD-781: Other demonstration test requirements

No Requirement

### Analysis/Prediction:

Indicates the analysis performed. The types of analyses considered are:

MIL-STD-756: Analysis and prediction per MIL-STD-756/Parts Stress Analysis

Not MIL-STD-756: Analysis and prediction based upon documentation other than MIL-STD-756/Parts Count

Informal: Informal analysis and prediction based upon similarity or function. Limited documentation requirements

No Requirement: No analysis or prediction required

Numerics:

Indicates the applicability of the numerics. The levels considered are:

Contractual Rel.: Contractual Reliability

Reliability: Reliability stated as design goal only

No Requirement: No reliability required

Program Elements:

Identifies each required specification, its applicable revision letter, and the extent to which it is specified. The specifications considered are:

MIL-STD-756

MIL-STD-781

MIL-STD-785

MIL-HDBK-217

RADC Notebook: RADC Notebook, Volume II

The applicable compliance codes considered are:

Contract: Full contract compliance required to each and every detail of the document

Limited: Specific deviations from the document are stated and allowed

Guide: Specific compliance is not required; however, actions are to be patterned after the document

Design Analysis:

Indicates all of the applicable types of design analyses specifically required by the contract. The analyses considered are:

FMEA/FMECA

Fault Tree: Fault Tree Analysis

Worst Case: Worst-Case Electrical Design Analysis

Other

Development Tests:

Indicates all of the tests required during the development phase. The tests considered are:

Design Qualification: Design Qualification Test

Env. Qualification: Environmental Qualification Test

Growth Tests: Reliability Growth Tests

Competitive Fly Off

Production Inspection:

Indicates all contractually specified inspection methodologies. The methodologies considered are:

Sampling: Sample Incoming Inspection

100% Acceptance: 100 Percent Acceptance Test

Process Screening: Process Screening

MIL-STD-781 Verify: Reliability Verification Per MIL-STD-781

Equipment ID Numbers:

Indicates the number of each equipment corresponding to this contract.

# PROGRAM CHARACTERIZATION

	1	2
PROGRAM ID. NUMBER		
PROCURING AGENCY		
USING COMMAND	TAC/SAC	
DESIGN YEAR	69	71
PROCUREMENT LEVEL	System	Set
APPLICATION	Aircraft	Ground
MISSION LENGTH	Between 1 & 8 Hr	Between 1 & 8 Hr
PROCUREMENT TYPE	New Design	New Design
PROCUREMENT APPROACH	Not Reported	Low Bidder
CONTRACT TYPE	Not Reported	Fixed Price
FINANCIAL POSTURE	Not Reported	Incentive Award
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	MIL-STD-781
		Plan 3 Level C
ANALYSIS/PREDICTION	MIL-STD-756	Not Reported
NUMERICS	Reliability	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756	Contract	
MIL-STD-781		Contract Rev B
MIL-STD-785		
MIL-HDBK-217	Contract Rev A	
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		X
ENV. QUALIFICATION		
GROWTH TESTS		X
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING	X	
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY	X	
EQUIPMENT ID. NUMBERS	282-289 391-394	229

# EERD-2 EQUIPMENT RELIABILITY

<b>PROGRAM ID. NUMBER</b> <b>PROCURING AGENCY</b> <b>USING COMMAND</b> <b>DESIGN YEAR</b> <b>PROCUREMENT LEVEL</b> <b>APPLICATION</b> <b>MISSION LENGTH</b> <b>PROCUREMENT TYPE</b> <b>PROCUREMENT APPROACH</b> <b>CONTRACT TYPE</b> <b>FINANCIAL POSTURE</b> <b>DESIGN REVIEW</b> <b>DEMONSTRATION</b>  <b>ANALYSIS/PREDICTION</b> <b>NUMERICS</b>  <b>PROGRAMMING ELEMENTS</b> MIL-STD-756 MIL-STD-781 MIL-STD-785 MIL-HDBK-217 RADC NOTEBOOK  <b>DESIGN ANALYSIS</b> FMEA/FMECA FAULT TREE WORST CASE THERMAL OTHER  <b>DEVELOPMENT TESTS</b> DESIGN QUALIFICATION ENV. QUALIFICATION GROWTH TESTS COMPETITIVE FLY OFF  <b>PRODUCTION INSPECTION</b> SAMPLING 100% ACCEPTANCE PROCESS SCREENING MIL-STD-781 VERIFY  <b>EQUIPMENT ID. NUMBERS</b>	<b>3</b> USAF RADC/IS  Set Ground Continuous Equip Maintenance Not Reported Off The Shelf Not Reported Not Reported No Requirement  No Requirement Not Reported	<b>4</b> ELCOM SCA 76 Unit Ground Continuous Not Reported Not Reported Not Reported Not Reported Not Reported MIL-STD-781 Plan 8 Level A MIL-STD-756 Contractual Rel.  Contract Rev A  Limited Rev B
	303-309	246

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	5	6
PROCURING AGENCY	ESD	
USING COMMAND		
DESIGN YEAR	73	73
PROCUREMENT LEVEL	System	Set
APPLICATION	Ground	Aircraft
MISSION LENGTH	Continuous	Between 1 & 8 Hr
PROCUREMENT TYPE	New Design	New Design
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Cost Plus Incentive
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	>=2 Formal	>=2 Formal
DEMONSTRATION	Not Reported	MIL-STD-781
		Plan 2 Level F
ANALYSIS/PREDICTION	MIL-STD-756	MIL-STD-756
NUMERICS	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781	Contract	Contract Rev B
MIL-STD-785	Contract	Guide Rev A
MIL-HDBK-217		
RADC NOTEBOOK	Contract	Limited
DESIGN ANALYSIS		
FMEA/FMECA		X
FAULT TREE		
WORST CASE		
THERMAL		X
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		X
ENV. QUALIFICATION		X
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	1- 2 4- 24 357	228 234-243 258



# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>7</b>	<b>8</b>
<b>PROCURING AGENCY</b>		<b>AFSC</b>
<b>USING COMMAND</b>		<b>MAC</b>
<b>DESIGN YEAR</b>	<b>75</b>	<b>75</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Ground</b>
<b>MISSION LENGTH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>Equip Maintenance</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Warranty</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>MIL-STD-781</b>	<b>MIL-STD-781</b>
	<b>Plan 3 Level F</b>	<b>Plan 8 Level E</b>
<b>ANALYSIS/PREDICTION</b>	<b>MIL-STD-756</b>	<b>MIL-STD-756</b>
<b>NUMERICS</b>	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		<b>Contract Rev A</b>
<b>MIL-STD-781</b>	<b>Contract Rev B</b>	<b>Contract Rev B</b>
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		<b>Guide Rev B</b>
<b>RADC NOTEBOOK</b>	<b>Contract</b>	<b>Guide</b>
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		<b>X</b>
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>25- 28</b>	<b>231-233</b> <b>245</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	9	10
PROCURING AGENCY		RADC
USING COMMAND		
DESIGN YEAR	ADCOM	
PROCUREMENT LEVEL	76	70
APPLICATION	System	Set
MISSION LENGTH	Ground	Ground
PROCUREMENT TYPE	Continuous	Not Reported
PROCUREMENT APPROACH	New Design	New Design
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	>=2 Formal	>=2 Formal
	Not MIL-STD-781	Not Reported
ANALYSIS/PREDICTION		
NUMERICS	MIL-STD-756	MIL-STD-756
	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756	Contract Rev A	Contract Rev A
MIL-STD-781	Limited Rev B	Contract Rev B
MIL-STD-785	Limited Rev A	
MIL-HDBK-217	Limited Rev B	
RADC NOTEBOOK		Contract
DESIGN ANALYSIS		
FMEA/FMECA	X	
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		X
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE	X	
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	247	277
	249	
	251-257	
	259-262	
	264-266	

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>11</b>	<b>12</b>
<b>PROCURING AGENCY</b>	<b>RADC</b>	<b>RADC</b>
<b>USING COMMAND</b>		
<b>DESIGN YEAR</b>	<b>71</b>	<b>70</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Ground</b>	<b>Ground</b>
<b>MISSION LENGTH</b>	<b>Continuous</b>	<b>&gt; Than 8 Hours</b>
<b>PROCUREMENT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>&gt;=2 Formal</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>MIL-STD-756</b>
<b>NUMERICS</b>	<b>Not Reported</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		<b>Contract Rev A</b>
<b>MIL-STD-781</b>	<b>Contract Rev A</b>	<b>Contract Rev B</b>
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		<b>Contract Rev B</b>
<b>RADC NOTEBOOK</b>	<b>Guide</b>	
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>	<b>X</b>	
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>29</b>	<b>280</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	13	14
PROCURING AGENCY	RADC	USAF
USING COMMAND		TAC
DESIGN YEAR	76	70
PROCUREMENT LEVEL	Set	System
APPLICATION	Ground	Aircraft
MISSION LENGTH	Continuous	Not Reported
PROCUREMENT TYPE	Modified Design	New Design
PROCUREMENT APPROACH	Not Reported	Tech. Consideration
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	>=2 Formal	>=2 Formal
DEMONSTRATION	MIL-STD-781	Not Reported
	Plan 4 Level A	
ANALYSIS/PREDICTION	MIL-STD-756	Informal
NUMERICS	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756	Contract	Guide
MIL-STD-781	Contract Rev B	Contract Rev B
MIL-STD-785		Contract
MIL-HDBK-217	Contract Rev B	Guide
RADC NOTEBOOK		Guide
DESIGN ANALYSIS		
FMEA/FMECA		X
FAULT TREE		
WORST CASE		
THERMAL		X
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION	X	X
ENV. QUALIFICATION	X	
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	263	30- 46 84-148 150 216-221 315

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>15</b>	<b>16</b>
<b>PROCURING AGENCY</b>	<b>USAF</b>	<b>USAF</b>
<b>USING COMMAND</b>	<b>TAC</b>	<b>TAC</b>
<b>DESIGN YEAR</b>	<b>72</b>	<b>72</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>MIL-STD-781</b>
		<b>Plan 3 Level F</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>NUMERICS</b>	<b>Not Reported</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		<b>Limited Rev B</b>
<b>MIL-STD-785</b>		<b>Limited Rev A</b>
<b>MIL-HDBK-217</b>		<b>Limited Rev A</b>
<b>RADC NOTEBOOK</b>		<b>Limited</b>
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		<b>X</b>
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		<b>X</b>
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>62</b>	<b>48</b>
	<b>66</b>	<b>51- 52</b>
	<b>68- 69</b>	<b>54</b>
	<b>71</b>	<b>56</b>
		<b>58</b>
		<b>60</b>

PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	17	18
PROCURING AGENCY		ASD
USING COMMAND		VARIOUS
DESIGN YEAR	72	72
PROCUREMENT LEVEL	Set	Set
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Not Reported	Between 1 & 8 Hr
PROCUREMENT TYPE	Not Reported	New Design
PROCUREMENT APPROACH	Not Reported	Minimum LCC
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	MIL-STD-781
		Plan 26 Level E
ANALYSIS/PREDICTION	Not Reported	MIL-STD-756
NUMERICS	Not Reported	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781		Contract Rev B
MIL-STD-785		
MIL-HDBK-217	Guide	
RADC NOTEBOOK	Rev B	Contract
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		X
ENV. QUALIFICATION		X
GROWTH TESTS		X
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	290-300	151-154

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>19</b>	<b>20</b>
<b>PROCURING AGENCY</b>	<b>ASD</b>	<b>ASD</b>
<b>USING COMMAND</b>	<b>VARIOUS</b>	<b>VARIOUS</b>
<b>DESIGN YEAR</b>	<b>72</b>	<b>72</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH</b>	<b>Between 1 &amp; 8 Hr</b>	<b>Between 1 &amp; 8 Hr</b>
<b>PROCUREMENT TYPE</b>	<b>New Design</b>	<b>New Design</b>
<b>PROCUREMENT APPROACH</b>	<b>Minimum LCC</b>	<b>Minimum LCC</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>MIL-STD-781</b>	<b>MIL-STD-781</b>
	<b>Plan 26 Level E</b>	<b>Plan 26 Level E</b>
	<b>MIL-STD-756</b>	<b>MIL-STD-756</b>
	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>ANALYSIS/PREDICTION NUMERICS</b>		
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>	<b>Contract Rev B</b>	
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>	<b>Contract</b>	
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>	<b>X</b>	<b>X</b>
<b>ENV. QUALIFICATION</b>	<b>X</b>	<b>X</b>
<b>GROWTH TESTS</b>	<b>X</b>	<b>X</b>
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>159</b>	<b>155-158</b>
	<b>161</b>	
	<b>166</b>	
	<b>168</b>	
	<b>172</b>	

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	21	22
PROCURING AGENCY	USAF	ASD
USING COMMAND	TAC	VARIOUS
DESIGN YEAR	73	72
PROCUREMENT LEVEL	System	Set
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Between 1 & 8 Hr	Between 1 & 8 Hr
PROCUREMENT TYPE	New Design	New Design
PROCUREMENT APPROACH	Not Reported	Minimum LCC
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	Not Reported
ANALYSIS/PREDICTION	Not Reported	MIL-STD-756
NUMERICS	Not Reported	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781		Contract
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK		Contract
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		X
ENV. QUALIFICATION		X
GROWTH TESTS		X
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	222-227	160
	271-276	162-165
	301	167
	340	169-171
	343-345	173-175



# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>23</b>	<b>24</b>
<b>PROCURING AGENCY</b>	<b>AFLC</b>	<b>AFLC</b>
<b>DESIGN YEAR</b>	<b>74</b>	<b>74</b>
<b>PROCUREMENT LEVEL</b>	<b>Unit</b>	<b>Unit</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>ANALYSIS/PREDICTION NUMERICS</b>	<b>MIL-STD-781</b>	<b>MIL-STD-781</b>
	<b>Plan 29 Level E</b>	<b>Plan 29 Level E</b>
	<b>Not Reported</b>	<b>Not Reported</b>
	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>		
	<b>X</b>	
	<b>176-186</b>	<b>187-194</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	25	26
PROCURING AGENCY	AFLC	AFLC
USING COMMAND		
DESIGN YEAR	76	74
PROCUREMENT LEVEL	Unit	Unit
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Between 1 & 8 Hr	Between 1 & 8 Hr
PROCUREMENT TYPE	Not Reported	Not Reported
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	MIL-STD-781	MIL-STD-781
	Plan 29 Level E	Plan 29 Level E
ANALYSIS/PREDICTION	Not Reported	Not Reported
NUMERICS	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781	Contract Rev B	Contract Rev B
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	195	196

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>27</b>	<b>28</b>
<b>PROCURING AGENCY</b>	<b>USAF</b>	
<b>USING COMMAND</b>	<b>AFSC/ASD</b>	
<b>DESIGN YEAR</b>	<b>76</b>	<b>73</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Ground</b>
<b>MISSION LENGTH</b>	<b>&gt; Than 8 Hours</b>	<b>Continuous</b>
<b>PROCUREMENT TYPE</b>	<b>New Design</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Tech. Consideration</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Warranty</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Incentive Award</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>MIL-STD-781</b>
<b>ANALYSIS/PREDICTION</b>	<b>MIL-STD-756</b>	<b>Plan 25 Level A</b>
<b>NUMERICS</b>	<b>Contractual Rel.</b>	<b>Not Reported</b>
<b>PROGRAMMING ELEMENTS</b>		<b>Contractual Rel.</b>
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		<b>Contract Rev B</b>
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>	<b>Contract Rev B</b>	<b>Contract Rev B</b>
<b>RADC NOTEBOOK</b>		
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>	<b>X</b>	
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>269-270</b>	<b>197-199</b>
	<b>278-279</b>	

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	29	32
PROCURING AGENCY	FAA	NAVAR
USING COMMAND	ADC	NAVSYSM
DESIGN YEAR	67	70
PROCUREMENT LEVEL	Set	Unit
APPLICATION	Ground	Aircraft
MISSION LENGTH	Continuous	< Than 1 Hour
PROCUREMENT TYPE	Not Reported	Existing Design
PROCUREMENT APPROACH	Not Reported	Sole Source
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Reliability Effort
DESIGN REVIEW	Not Reported	No Requirement
DEMONSTRATION	MIL-STD-781	MIL-STD-781
	Plan 5 Level	Plan 0 Level
ANALYSIS/PREDICTION	Not Reported	Not Reported
NUMERICS	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		Guide
MIL-STD-781		Limited Rev B
MIL-STD-785	Contract	Guide
MIL-HDBK-217		Guide Rev B
RADC NOTEBOOK	Contract	
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	230	268

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>34</b>	<b>35</b>
<b>PROCURING AGENCY</b>	<b>NAVY</b>	<b>NAVY</b>
<b>USING COMMAND</b>	<b>NAVAIR</b>	<b>NAVAIR</b>
<b>DESIGN YEAR</b>	<b>68</b>	<b>68</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>Existing Design</b>	<b>Existing Design</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>MIL-STD-781</b>	<b>MIL-STD-781</b>
	<b>Plan 0 Level</b>	<b>Plan 0 Level</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>NUMERICS</b>	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>	<b>Contract Rev B</b>	<b>Contract Rev B</b>
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>	<b>X</b>	
<b>EQUIPMENT ID. NUMBERS</b>		
	<b>200</b>	<b>201</b>
	<b>202</b>	<b>203</b>
	<b>204</b>	<b>205</b>
	<b>206</b>	<b>207</b>
	<b>208</b>	<b>209</b>
	<b>210</b>	<b>211</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	36	37
PROCURING AGENCY	NAVAR	NAVAIR
USING COMMAND	NAVSYSCH	76
DESIGN YEAR	70	System
PROCUREMENT LEVEL	Unit	Aircraft
APPLICATION	Aircraft	Continuous
MISSION LENGTH	Not Reported	New Design
PROCUREMENT TYPE	Existing Design	Not Reported
PROCUREMENT APPROACH	Sole Source	Not Reported
CONTRACT TYPE	Cost Plus Incentive	Not Reported
FINANCIAL POSTURE	Reliability Effort	Not Reported
DESIGN REVIEW	No Requirement	Not Reported
DEMONSTRATION	Not MIL-STD-781	MIL-STD-781
ANALYSIS/PREDICTION	Not Reported	Plan 0 Level
NUMERICS	Contractual Rel.	Not Reported
PROGRAMMING ELEMENTS		
MIL-STD-756	Guide	Guide
MIL-STD-781	Limited Rev B	Guide Rev B
MIL-STD-785	Guide	Guide Rev B
MIL-HDBK-217	Guide Rev B	Guide Rev B
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING	X	
100% ACCEPTANCE	X	
PROCESS SCREENING	X	
MIL-STD-781 VERIFY	X	
EQUIPMENT ID. NUMBERS	281	267 346-351

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>38</b>	<b>39</b>
<b>PROCURING AGENCY</b>	<b>NAVY</b>	<b>NAVY</b>
<b>USING COMMAND</b>	<b>NAVELEX</b>	<b>NAVSEA</b>
<b>DESIGN YEAR</b>	<b>72</b>	<b>72</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Various</b>	<b>Shipboard</b>
<b>MISSION LENGTH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>MIL-STD-781</b>
		<b>Plan 0 Level</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>NUMERICS</b>	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
	<b>Contract Rev A</b>	<b>Contract Rev B</b>
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>302</b>	<b>212-215</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	40	41
PROCURING AGENCY		
USING COMMAND		
DESIGN YEAR	73	76
PROCUREMENT LEVEL	Set	Set
APPLICATION	Shipboard	Aircraft
MISSION LENGTH	Not Reported	Not Reported
PROCUREMENT TYPE	New Design	Not Reported
PROCUREMENT APPROACH	Tech. Consideration	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	Not Reported
ANALYSIS/PREDICTION	MIL-STD-756	Not Reported
NUMERICS	Not Reported	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756	Contract Rev A	
MIL-STD-781		
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	244	312-314



# EERD-2 EQUIPMENT RELIABILITY

PROGRAM ID. NUMBER	42	43
PROCURING AGENCY		USAF
USING COMMAND		TAC
DESIGN YEAR	70	77
PROCUREMENT LEVEL	System	Unit
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Not Reported	Between 1 & 8 Hr
PROCUREMENT TYPE	Modified Design	New Design
PROCUREMENT APPROACH	Not Reported	Low Bidder
CONTRACT TYPE	Not Reported	Warranty
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	MIL-STD-781
ANALYSIS/PREDICTION	Not Reported	Plan 0 Level
NUMERICS	Not Reported	Informal
		Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781		
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK	Contract Rev B	Guide Rev B
DESIGN ANALYSIS		Guide Rev B
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	337-339	316-326

PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	44	45
PROCURING AGENCY	ASD	AFSC
USING COMMAND	TAC	MAC
DESIGN YEAR	75	75
PROCUREMENT LEVEL	System	Set
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Between 1 & 8 Hr	Not Reported
PROCUREMENT TYPE	New Design	Modified Design
PROCUREMENT APPROACH	Not Reported	Tech. Consideration
CONTRACT TYPE	Not Reported	Warranty
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	1 Formal
DEMONSTRATION	MIL-STD-781	MIL-STD-781
	Plan 0 Level	Plan 3 Level E
	MIL-STD-756	MIL-STD-756
ANALYSIS/PREDICTION	Contractual Rel.	Contractual Rel.
NUMERICS		
PROGRAMMING ELEMENTS		
MIL-STD-756		Contract
MIL-STD-781	Contract Rev B	Contract Rev B
MIL-STD-785		Contract
MIL-HDBK-217	Contract Rev B	Contract Rev B
RADC NOTEBOOK		Guide
DESIGN ANALYSIS		
FMEA/FMECA	X	X
FAULT TREE		
WORST CASE		
THERMAL		X
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION	X	
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	341-342 352-356	327-330

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>46</b>	<b>47</b>
<b>PROCURING AGENCY</b>	<b>0</b>	
<b>USING COMMAND</b>	<b>0</b>	<b>NAVSEA</b>
<b>DESIGN YEAR</b>	<b>80</b>	<b>76</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Ground</b>	<b>Shipboard</b>
<b>MISSION LENGTH</b>	<b>Between 1 &amp; 8 Hr</b>	<b>Not Reported</b>
<b>PROCUREMENT TYPE</b>	<b>New Design</b>	<b>Not Reported</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Off The Shelf</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>No Requirement</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>No Requirement</b>	<b>MIL-STD-781</b>
<b>ANALYSIS/PREDICTION</b>	<b>No Requirement</b>	<b>Plan 3 Level A</b>
<b>NUMERICS</b>	<b>Not Reported</b>	<b>MIL-STD-756</b>
		<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		<b>X</b>
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		<b>X</b>
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		<b>X</b>
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>331-333</b>	<b>334</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	48	49
PROCURING AGENCY	NAVSEA	NAVY
USING COMMAND	76	NAVELEX
DESIGN YEAR	Set	74
PROCUREMENT LEVEL	Shipboard	Set
APPLICATION	Not Reported	Shipboard
MISSION LENGTH	Modified Design	Continuous
PROCUREMENT TYPE	Not Reported	New Design
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	MIL-STD-781	Not Reported
DEMONSTRATION	Plan 3 Level A	Not Reported
ANALYSIS/PREDICTION	MIL-STD-756	Contractual Rel.
NUMERICS	Contractual Rel.	
PROGRAMMING ELEMENTS		
MIL-STD-756	Contract Rev A	
MIL-STD-781	Contract Rev B	
MIL-STD-785	Contract Rev A	
MIL-HDBK-217	Contract Rev C	Contract Rev B
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA	X	
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION	X	
ENV. QUALIFICATION		
GROWTH TESTS	X	
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	335	336

# EERD-2 EQUIPMENT RELIABILITY

PROGRAM ID. NUMBER	50	51
PROCURING AGENCY		
USING COMMAND		
DESIGN YEAR	73	67
PROCUREMENT LEVEL	Set	Set
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Between 1 & 8 Hr	Between 1 & 8 Hr
PROCUREMENT TYPE	New Design	Modified Design
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	MIL-STD-781	MIL-STD-781
	Plan 26 Level B	Plan 0 Level A
ANALYSIS/PREDICTION	Not Reported	Not Reported
NUMERICS	Contractual Rel.	Contractual Rel.
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781	Contract Rev B	Limited Rev A
MIL-STD-785		
MIL-HDBK-217		Limited Rev A
RADC NOTEBOOK		
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	378	379

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	52	53
PROCURING AGENCY		
USING COMMAND		
DESIGN YEAR	75	75
PROCUREMENT LEVEL	Set	Set
APPLICATION	Ground	Aircraft
MISSION LENGTH	> Than 8 Hours	Between 1 & 8 Hr
PROCUREMENT TYPE	Modified Design	Modified Design
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	Not Reported
ANALYSIS/PREDICTION	Not Reported	Not MIL-STD-756
NUMERICS	Contractual Rel.	Reliability
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781		
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK	Limited	Limited
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	358-377	395-406

# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>54</b>	<b>55</b>
<b>PROCURING AGENCY</b>		
<b>USING COMMAND</b>		
<b>DESIGN YEAR</b>	<b>74</b>	<b>79</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH .</b>	<b>Between 1 &amp; 8 Hr</b>	<b>Between 1 &amp; 8 Hr</b>
<b>PROCUREMENT TYPE</b>	<b>New Design</b>	<b>New Design</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Cost Plus Incentive</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>MIL-STD-781</b>	<b>MIL-STD-781</b>
	<b>Plan 21 Level B</b>	<b>Plan 14 Level C</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>NUMERICS</b>	<b>Contractual Rel.</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		
<b>MIL-STD-785</b>	<b>Limited Rev B</b>	<b>Limited Rev C</b>
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>390</b>	<b>385</b>

# PROGRAM CHARACTERIZATION

PROGRAM ID. NUMBER	57	58
PROCURING AGENCY		
USING COMMAND		
DESIGN YEAR	79	67
PROCUREMENT LEVEL	Set	Set
APPLICATION	Aircraft	Aircraft
MISSION LENGTH	Not Reported	Between 1 & 8 Hr
PROCUREMENT TYPE	New Design	Not Reported
PROCUREMENT APPROACH	Not Reported	Not Reported
CONTRACT TYPE	Not Reported	Not Reported
FINANCIAL POSTURE	Not Reported	Not Reported
DESIGN REVIEW	Not Reported	Not Reported
DEMONSTRATION	Not Reported	Not Reported
ANALYSIS/PREDICTION	Not Reported	Not Reported
NUMERICS	Contractual Rel.	Reliability
PROGRAMMING ELEMENTS		
MIL-STD-756		
MIL-STD-781		
MIL-STD-785		
MIL-HDBK-217		
RADC NOTEBOOK	Limited Rev C	
DESIGN ANALYSIS		
FMEA/FMECA		
FAULT TREE		
WORST CASE		
THERMAL		
OTHER		
DEVELOPMENT TESTS		
DESIGN QUALIFICATION		
ENV. QUALIFICATION		
GROWTH TESTS		
COMPETITIVE FLY OFF		
PRODUCTION INSPECTION		
SAMPLING		
100% ACCEPTANCE		
PROCESS SCREENING		
MIL-STD-781 VERIFY		
EQUIPMENT ID. NUMBERS	380-383	384



# **EERD-2 EQUIPMENT RELIABILITY**

<b>PROGRAM ID. NUMBER</b>	<b>59</b>	<b>60</b>
<b>PROCURING AGENCY</b>		<b>AFSC</b>
<b>USING COMMAND</b>		<b>TAC</b>
<b>DESIGN YEAR</b>	<b>79</b>	<b>75</b>
<b>PROCUREMENT LEVEL</b>	<b>Set</b>	<b>Set</b>
<b>APPLICATION</b>	<b>Aircraft</b>	<b>Aircraft</b>
<b>MISSION LENGTH</b>	<b>Between 1 &amp; 8 Hr</b>	<b>Between 1 &amp; 8 Hr</b>
<b>PROCUREMENT TYPE</b>	<b>Not Reported</b>	<b>New Design</b>
<b>PROCUREMENT APPROACH</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>CONTRACT TYPE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>FINANCIAL POSTURE</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DESIGN REVIEW</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>DEMONSTRATION</b>	<b>Not Reported</b>	<b>MIL-STD-781</b>
		<b>Plan 3 Level F</b>
<b>ANALYSIS/PREDICTION</b>	<b>Not Reported</b>	<b>Not Reported</b>
<b>NUMERICS</b>	<b>Not Reported</b>	<b>Contractual Rel.</b>
<b>PROGRAMMING ELEMENTS</b>		
<b>MIL-STD-756</b>		
<b>MIL-STD-781</b>		
<b>MIL-STD-785</b>		
<b>MIL-HDBK-217</b>		
<b>RADC NOTEBOOK</b>		
	<b>Contract Rev B</b>	<b>Contract Rev B</b>
<b>DESIGN ANALYSIS</b>		
<b>FMEA/FMECA</b>		
<b>FAULT TREE</b>		
<b>WORST CASE</b>		
<b>THERMAL</b>		
<b>OTHER</b>		
<b>DEVELOPMENT TESTS</b>		
<b>DESIGN QUALIFICATION</b>		
<b>ENV. QUALIFICATION</b>		
<b>GROWTH TESTS</b>		
<b>COMPETITIVE FLY OFF</b>		
<b>PRODUCTION INSPECTION</b>		
<b>SAMPLING</b>		
<b>100% ACCEPTANCE</b>		
<b>PROCESS SCREENING</b>		
<b>MIL-STD-781 VERIFY</b>		
<b>EQUIPMENT ID. NUMBERS</b>	<b>386-389</b>	<b>72- 73</b> <b>75- 83</b>

## ADDITIONAL RAC SERVICES

## **ADDITIONAL RAC SERVICES**

### **Search Services**

Retrospective Searches are conducted at a flat fee of \$200 per search. If no references are identified, a \$50 service charge will be made in lieu of the above. For best results, please call or write for assistance in formulating your search question. An extra charge, based on engineering time and costs, will be made for evaluating, extracting or summarizing information from the cited references.

### **Consulting Services**

Consulting Service fees are determined by the costs incurred in the conduct of the designed work, including staff time and overhead, materials and other expenses. Work will be initiated upon receipt of a signed purchase order. We will be pleased to prepare firm cost proposals.

### **Full Service Participating Plan**

The Plan may be opened in two ways:

- Pre-deposit of a minimum amount of \$500 U.S., \$575 non-U.S., the maximum to be determined by the requestor
- A purchase order for not less than the above amounts with a "not-to-exceed" amount indicated. IITRI/RAC will bill for services and publications on a quarterly basis.

Services provided to a participating member are:

- Automatic receipt of one (1) copy of each RAC publication issued during the participation period
- Availability of additional copies of each of the above publications (except video tapes) at 20% off list price
- Discount on registration fees for RAC-sponsored training courses, seminars, workshops, etc.

In addition, the participating member may access RAC resources as needed without issuing purchase orders. RAC will maintain the account record of funds expended and furnish an account statement every 6 months or at the customer's request.

### **Blanket Purchase Order**

The Blanket Purchase Order option enables you to write a single Purchase Order for a stipulated maximum dollar amount (depending on your needs) and active time duration (a one-year period is suggested), but you pay only for services rendered or documents purchased.

**Military Agencies:** Blanket Purchase Agreement, DD Form 1155, may be useful for ordering RAC reports and/or services. Please stipulate maximum dollar amount authorized and cutoff date on your order. Also specify services (e.g., publications, search services, etc.) to be provided. Identify vendor as IIT Research Institute (Reliability Analysis Center).

### **Ordering Information**

Place orders or obtain additional information directly from the Reliability Analysis Center. Clearly specify the publications and services desired. Except for blanket purchase orders, prepayment is required. All foreign orders must be accompanied by a check drawn on a U.S. bank. Please make checks payable to IITRI/RAC.

**SERVICE FEE SCHEDULE AND ORDERING INFORMATION**  
May 1986

			Price Per Copy	
Component Reliability Databooks			Domestic	Foreign
( )	MDR-14	Hybrid Circuit Data-1980	\$60.00	\$70.00*
( )	MDR-15	Digital Evaluation and Generic Failure Analysis Data - Vols. I and II-1980	60.00	70.00**
( )	MDR-18	Memory/LSI Data-1982	60.00	70.00**
( )	MDR-19	Digital SSI/MSI Data-1984	60.00	70.00**
( )	MDR-20	Linear/Interface Data-1984	60.00	70.00**
( )	DSR-3	Transistor/Diode Data-1980	60.00	70.00**
			Complete Set: \$310 (\$360 non-U.S.)	
( )	NPRD-3	Nonelectronic Parts Reliability Data-1985		
( )		Printed Copy	80.00	90.00*
( )		Floppy Disk Copy (IBM Compatible)	125.00	135.00*
( )	VZAP-1	Electrostatic Discharge Susceptibility Data-1983	95.00	105.00**
( )	MDR-21	Trend Analysis Databook-1985	95.00	105.00**
( )	MDR-21A	Field Experience Databook-1985	125.00	135.00**
			Set: \$200 (\$220 non-U.S.)	
Equipment Databooks				
( )	EERD-2	Electronic Equipment Reliability Data-1986	80.00	90.00**
( )	EEMD-1	Electronic Equipment Maintainability Data-1980	60.00	70.00*
Handbooks				
( )	RDH-376	Reliability Design Handbook-1976	36.00	46.00**
( )	MFAT-1	Microelectronics Failure Analysis Techniques Procedural Guide-1981	125.00	135.00**
( )	NPS-1	Analysis Techniques For Mechanical Reliability-1985	56.00	66.00*
State-of-the-Art Reports				
( )	SOAR-1	ESD Protective Materials and Equipment: A Critical Review	36.00	46.00*
( )	SOAR-2	Practical Statistical Analysis for the Reliability Engineer	36.00	46.00*
( )	SOAR-3	IC Quality Grades: Impact on System Reliability and Life Cycle Costs	46.00	56.00*
( )	SOAR-4	Confidence Bounds for System Reliability	46.00	56.00*
( )	SOAR-5	Surface Mount Technology: A Reliability Review	56.00	66.00

\*For air mail shipment to points outside North and Central America, add \$10.00 per item  
 \*\*For air mail shipment to points outside North and Central America, add \$15.00 per item  
 \*\*\*For air mail shipment to points outside North and Central America, add \$35.00 per item

(ORDER FORM AND ADDITIONAL DATABOOKS ON THE FOLLOWING PAGE)

**METHODS OF PAYMENT**

**RAC Full Service Plan**

The Full Service Plan option enables you to either predeposit a minimum of \$500 U.S. (\$575 non-U.S.) or write a single Purchase Order for a stipulated maximum dollar amount (depending on your needs) and active time duration and RAC will bill for services and publications on a quarterly basis.

**Military Agencies:** Blanket Purchase Agreement, DD Form 1155, may be used for ordering RAC reports and/or services. Please stipulate maximum dollar amount authorized and cutoff date on your order. Also specify services (i.e., publications, search services, etc.) to be provided. Identify vendor as IIT Research Institute, Reliability Analysis Center.

**Ordering Information**

Place orders or obtain additional information directly from the Reliability Analysis Center. Clearly specify the publications and services desired. No discounts other than those explicitly described herein are allowed.

Except for Full Service Plan and DD1155 orders, prepayment is required. All foreign orders must be accompanied by check drawn on a U.S. bank. Please make checks payable to: IITRI/RAC.

# **Technical Reliability Studies**

( )	TRS-1	Microcircuit Screening Effectiveness	36.00	46.00*
( )	TRS-2	Search and Retrieval Index to IRPS Proceedings-1968 to 1978	24.00	34.00**
( )	TRS-2A	Search and Retrieval Index to IRPS Proceedings-1979 to 1984	24.00	34.00**
( )	TRS-3A	EOS/ESD Technology Abstracts	36.00	46.00*
( )	TRS-4	Search and Retrieval Index to EOS/ESD Proceedings-1979 to 1984	36.00	46.00*

## **Electrical Overstress/Electrostatic Discharge Symposium Proceedings**

( )	EOS-1	1979 Proceedings	24.00	34.00*
( )	EOS-2	1980 Proceedings	24.00	34.00*
( )	EOS-3	1981 Proceedings	24.00	34.00*
( )	EOS-4	1982 Proceedings	24.00	34.00*
( )	EOS-5	1983 Proceedings	24.00	34.00*
( )	EOS-6	1984 Proceedings	24.00	34.00*
( )	EOS-7	1985 Proceeding	24.00	34.00*

Complete Set of Past Proceedings: \$105  
(\$145 non-U.S.)

## **VIDEO TAPE - "Hazards of Static Electricity"\*\*\*\***

( )	3/4" V-matic	Twenty-six minutes in length	105.00	115.00**
( )	1/2" VHS			
( )	Beta I or II			

\*For air mail shipment to points outside North and Central America, add \$10.00 per item

\*\*For air mail shipment to points outside North and Central America, add \$15.00 per item

\*\*\*For air mail shipment to points outside North and Central America, add \$35.00 per item

**Quantity Purchase Discounts** - Discounts (on multiple copies of a single title ordered at one time shipped to a single address) are:

\*\*\*\*VIDEO TAPES not included

Quantity	Discount	Quantity	Discount
1-2	list	10-19	30% off list
3-6	15% off list	20-49	40% off list
7-9	20% off list	50-99	50% off list
		100 or more	negotiable

## **ORDER FORM**

Please send me the documents checked above.

Enclosed find \$ \_\_\_\_\_

Name/Title \_\_\_\_\_

Send order and check to:

Organization \_\_\_\_\_

Reliability Analysis Center  
RADC/RAC  
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